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# A CATALOGUE OF BIRDS,

*&c.*

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VOLUME II.

COX AND WYMAN,
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# A CATALOGUE

OF

# THE BIRDS

IN

# The Museum

OF

# THE HON. EAST-INDIA COMPANY.

BY

THOMAS HORSFIELD, M. & PH. D., F.R.S.,

*Keeper of the Company's Museum,*

AND

FREDERIC MOORE,

*Assistant.*

VOL. II.

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1856–8.

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? Pitylus coccinneus, *Cuv.*

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A. B. ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

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A. B. ♂ ♀. Darjeeling. From Pearson's Collection.

*c. d.* . Nepal (type). Presented by B. H. Hodgson, Esq.

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683. *PYRRHULA ERYTHROCEPHALA, Vigors.*

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The Red-headed Bullfinch.

A. *b. c. d.* ♂ ♀ (adult and young). Nepal. Presented by B. H. Hodgson, Esq.

*e.* Bootan. From Pemberton's Collection.

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Pyrrhula nipalensis, *Hodgs., As. Res.* XIX. *p.* 155 (1836); *Gray's Zool. Misc.* (1844), *p.* 85; *Cat. B. of Nepal, p.* 111. *Blyth, J. A. S. Beng.* XIII. *p.* 951; *Cat. B. Mus. A. S. Beng. p.* 122. *G. R. Gray, Gen. of Birds,* II. *p.* 387. *Bonap., C. G. Av. p.* 525. *Gould, Birds of Asia, t.*

The Nepalese Bullfinch.

A. *b. c.* Nepal. Presented by B. H. Hodgson, Esq.

*d.* Darjeeling. From Pearson's Collection.

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Pyrrhoplectes epauletta, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85; *P. Z. S.* (1845), *p.* 36; *Ann. Nat. Hist.* (1845), *p.* 207. *Bonap., C. G. Av. p.* 524.

Pyrrhuloides epauletta, *Blyth, J. A. S. Beng.* XIII. *p.* 951; XXIV. *p.* 257.

The Epauletted Bullfinch, *Hodgson.*

A. B. *c. d.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

"Inhabits the northern and central regions of Nepal. Shy; adhering to the forests."—(Hodgson.)

Genus CARPODACUS, *Kaup, Nat. Syst. p.* 161 (1829).

ERYTHRINA, *Brehm., Deutsch. Vœg.* (1828).

ERYTHROSPIZA, *Bonap.* (1830).

ERYTHROTHORAX, *Brehm., Deutsch. Vœg.* (1831).

HÆMORRHOUS, *Swainson, Classif. of Birds, p.* 295 (1837).

PYRRHULINOTA, *Hodgs., Gray's Zool. Misc. p.* 84 (1844); *P. Z. S.* (1845), *p.* 36.

PROPASSER, *part. Hodgs.*

686. *CARPODACUS ERYTHRINUS, Pallas Sp.*

Pyrrhula erythrina, *Pallas, Nov. Com. Petrop.* IV. *p.* 587, *t.* 21, *f.* 1; *Zoogr. Ross. As.* II. *t.* 36.

Carpodacus erythrinus, *Kaup, Nat. Syst. p.* 161. *G. R. Gray, Gen. of Birds,* II. *p.* 384. *Hodgson's Cat. B. of Nepal, p.* 110. *Blyth, Cat. B. Mus. A. S. Beng. p.* 122; *J. A. S. Beng.* XXIII. *p.* 213. *Bonap. et Schleg., Monog. Lox. t.* 14. *Bonap., C. G. Av. p.* 534. *Cabanis, Cat. B. Mus. Heine, p.* 165.

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Coccothraustes roseus, *Vieill., Nouv. Dict. Hist. Nat.* XIII. *p.* 559.

Loxia rosea, *Vieill., Ois. Chant. t.* 65. *F.* (*Buch.*) *Hamilton MSS.* I. *p.* 80.

Hæmorrhous roseus, *Jerd., Madras Journ.* XI. *p.* 36.

Erythrospiza rosea, *Blyth, J. A. S. Beng.* XI. *p.* 461; XII. *p.* 177.

Erythrothorax rubrifrons, *Brehm., Deutsch. Vœg. p.*

Pyrrhulinota rosæcolor, v. rosea, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84.

Pyrrhulinota roseata, *Hodgs., P. Z. S.* (1845), *p.* 36.

Propasser sordida, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85 (*female*).

Tooty Finch, *Lath., Hist.* VI. *p.* 70.

TUTI or SURKHAR TUTI, Hind., *Blyth., Jerdon.*

Amonga Tuti, Nepal, *Hodgs.*

Chota Tuti, Sylhet, *F.* (*Buch.*) *Hamilton.*

A. B. *c. d.* ♂ ♀. (*Pyrrh. rosæcolor*, Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

*e. f.* ♀. (*Propasser sordida*, Hodgs.) Nepal. Ditto.

*f.* ♂. Darjeeling. From Pearson's Collection.

G. *h.* (in summer plumage). Kumaon. From Captain R. Strachey's Collection.

*i.* Drawing of ♂ ♀. From Dr. F. (B.) Hamilton's Collection.

" The Tuti has a feeble twittering song, but soft and pleasing, being intermediate to that of the European Goldfinch and that of the small Redpole Linnet; the call-note much resembling that of a canary-bird. It is commonly sold alive by the dealers in Calcutta."—(Blyth.)

" The Tuti arrives in the Peninsula from the north about November, and remains till March. I observed it in thick jungle at the bottom of the Coonoor pass, busily engaged in eating the seeds of the lofty bamboos. I have also observed it several times in large groves of trees in the northern part of the table-land. It associates in flocks of various numbers, and devours various grains, especially Jowaree (*Andropogon Sorghum*, Linn.), and also rice; and in default of these, various other grains, seeds, and even flower-buds, and young leaves of trees. It is occasionally caught and domesticated on account of its song."—(Jerdon.)

Genus Propasser, *Hodgson, Gray's Zool. Misc. p.* 84 (1844); *P. Z. S.* (1845), *p.* 36.

Phœnicospiza, *Blyth, J. A. S. Beng.* XXIII. *p.* 213 (1854).

687. *PROPASSER RUBICILLUS, Güldenstædt Sp.*

Loxia rubicilla, *Güldenst., Nov. Comm. Petrop.* XIX. *p.* 464, *t.* 12. *Lath., Hist. of Birds*, V. *p.* 219.

Carpodacus rubicillus, *Bonap. et Schleg., Monog. Lox. p.* 25, *t.* 26. *Bonap., C. G. Av. p.* 532. *Gould, Birds of Asia, t.*

Coccothraustes caucasicus, *Pallas, Zoogr.* II. *p.* 13.

Pyrrhula (Corythus) caucasica, *Keys. et Blas., Wirbelth, Eur. pp.* 56, 158.

Strobilophaga caucasica, *G. R. Gray, Gen. of Birds*, II. *p.* 387.

Carpodacus, Sp. 659, *Blyth, J. A. S. Beng.* XXII. *p.* 583.
Caucasian Grosbeak, *Latham.*

A. *b.* ♂. Ladakh. Presented by Captain R. Strachey.
C. ♀. Tibet. Presented by J. Gould, Esq.

Latham, in his "History of Birds," states, "that in the colder parts of the Caucasian mountains this bird frequents the stony hollows, and lives on the berries of the sea buckthorn (*Hippophae rhamnoides*, Linn.), which, by swallowing whole, they often propagate. Frequently observed in vast flocks; the note not unlike that of a bullfinch."

688. *PROPASSER RHODOCHLAMYS, Brandt Sp.*

Pyrrhula (Corythus) rhodochlamys, *Brandt, Bull. de l'Acad. de St. Petersb.* (1843), *p.* 27.

Carpodacus rhodochlamys, *Bonap. et Schleg., Monog. des Lox. p.* 22, *t.* 25, ♀. *Gould, Birds of Asia, t. Cabanis, Cat. B. Mus. Heine, p.* 166. *Blyth, J. A. S. Beng.* XXIII. *p.* 213.

Strobilophaga rhodochlamys, *G. R. Gray, Gen. of Birds,* III. *App. p.* 18.

Carpodacus Sophia, *Bonap. et Schleg., Monog. des Lox. p.* 22, *t.* 24, ♂. *Bonap., C. G. Av. p.* 532.

Carpodacus grandis, *Blyth, J. A. S. Beng.* XVIII. *p.* 810 (1849); *Cat. B. Mus. A. S. Beng. App. p.* 342 (*female*).

The Red-mantled Grosbeak, *Gould.*

A. ♂. Pushut. From Griffith's Collection.

Length 7 in., of wing 3⅝ in., of tail 3 inches.

689. *PROPASSER RHODOPEPLUS, Vigors Sp.*

Fringilla rhodopepla, *Vigors, P. Z. S.* (1831), *p.* 23. *Gould, Cent. of Birds, t.* 31, *f.* 1.

Propasser rhodopeplus, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84; *P. Z. S.* (1845), *p.* 36. *Icones ined. Pass. t.* 299.

Carpodacus rhodopeplus, *G. R. Gray, Gen. of Birds,* II. *p.* 384. *Hodgson's Cat. B. of Nepal, p.* 109. *Blyth, Cat. B. Mus. A. S. Beng. p.* 121. *Bonap. et Schleg., Monog. Lox. t.* 22. *Bonap., C. G. Av. p.* 531.

Erythrospiza rhodopepla, *Bonap., List of Birds* (1838), *p.* 35. *Blyth, J. A. S. Beng.* XIII. *p.* 952.

Phœnicospiza rhodopepla, *Blyth, J. A. S. Beng.* XXIII. *p.* 213 (1854).

Gulabi Tuti, Nepal, *Hodgs.*

A. B. *c. d.* ♂ ♀. Nepal (No. 340, Hodgs. Catal.). Presented by B. H. Hodgson, Esq.

690. *PROPASSER THURA, Bonaparte Sp.*

Carpodacus Thura, *Bonap. et Schleg., Monog. des Lox. t.* 23. *Bonap., Consp. Gen. Av. p.* 531 (*male*).

Propasser rhodopeplus, *part. Hodgson.*

A. B. *c.* ♂ ♀. Nepal (No. 340*, Hodgs. Catal.). Presented by B. H. Hodgson, Esq., 1853.

*d.* ♀. Bootan. From Pemberton's Collection.

This species may be distinguished from *P. rhodopeplus* by its rather smaller and a trifle more Pyrrhuline bill; the colour of the male above being hair-brown, centred with blackish, and the lesser range of wing-coverts *only* are crimson-tipped; whereas, in *P. rhodopeplus*, the male above is dark crimson-brown, and has *both* ranges of wing-coverts *and the tertiaries* crimson-tipped.

The female of *P. Thura* (which has not hitherto been noticed) may be distinguished from the same sex of *rhodopeplus* by being paler above, and having paler centres to the feathers; the colour of the underparts being considerably more uniform, and having also but faint centres to the feathers. *P. rhodopeplus* is a trifle larger than *P. Thura*.

These birds have been compared by the Prince C. L. Bonaparte, and his Highness also verifies their distinctness.

691. *PROPASSER RHODOCHROUS, Vigors Sp.*

Fringilla rhodochroa, *Vigors, P. Z. S.* (1831), *p.* 23. *Gould, Cent. of Birds, t.* 31, *f.* 2.

Propasser rhodochrous, *Hodgs., P. Z. S.* (1845), *p.* 36; *Ann. Nat. Hist.* (1845), *p.* 207.

Carpodacus rhodochrous, *G. R. Gray, Gen. of Birds*, II. *p.* 384. *Hodgs., Cat. B. of Nep. p.* 109. *Blyth, Cat. B. Mus. A. S. Beng. p.* 122. *Bonap., C. G. Av. p.* 531.

Erythrospiza rhodochroa, *Bonap., List of Birds, p.* 35. *Blyth, J. A. S. Beng.* XIII. *p.* 953.

Propasser pulcherrimus (part), *Hodgs.*, *Gray's Zool. Misc.* (1844), *p.* 85.

Phœnicospiza rhodochroa, *Blyth*, *J. A. S. Beng.* XXIII. *p.* 213 (1854).

Goolabi Tuti, Nepal, *Hodgs.*

Cheerya, Plains, *Royle.*

A. ♂. (*P. rodochrous*, Vigors). Nepal. Presented by B. H. Hodgson, Esq.

*b.* ♂. Kumaon. From Captain R. Strachey's Collection.

C. ♂. Himalaya. From Bax's Collection.

692. *PROPASSER PULCHERRIMUS*, *Hodgson.*

Propasser pulcherrimus, *Hodgs.*, *Gray's Zool. Misc.* (1844), *p.* 85.

A. B. ♂ ♀. (*P. pulcherrimus*, H.). Nepal. Presented by B. H. Hodgson, Esq.

C. ♂. Kumaon. From Captain R. Strachey's Collection.

Differs from *P. rhodochrous* in having the forehead, superciliary streak, cheeks, throat, and under-parts, with the rump, silvery crimson, being almost silvery white about the head; the upper parts, with the crown, are dark brown, with pale crimson edges to each feather. The female differs from the same sex of *P. rhodochrous* in having the under-parts dusky-white, instead of rufescent; and above, the colours are also less rufescent.

The size is the same as *P. rhodochrous*, excepting that the wing in this bird is longer in both sexes.

Both sexes of this species and *P. rhodochrous* were sent from Nepal to the British Museum by Mr. Hodgson, under the name of *pulcherrimus*, and which name, upon examining his original drawings, we find refers to the true *rhodochrous*, and not to the present species; but as that indefatigable naturalist applied the name to both birds, we deem it but correct to retain the same for the above.

Genus Rhodopechys, *Cabanis* (1851).

Erythrospiza, *Bonap.*, *Geogr. et Comp. List of Birds*, *p.* 34 (1838), (*non Bonap.* 1830).

693. *RHODOPECHYS SANGUINEA*, *Gould Sp.*

Fringilla sanguinea, *Gould*, *P. Z. S.* (1837), *p.* 127. *Dickson et Ross*, *P. Z. S.* (1839), *p.* 121.

Rhodopechys sanguinea, *Cabanis.*

Erythrospiza phœnicoptera, *Bonap. List, p.* 34 (1838); *Bonap. et Schleg., Monog. Lox. t.* 30, 31. *Bonap., Consp. Gen. Av. p.* 535.

Fringilla rhodoptera, *Lichtenstein, Mus. Lugd.*

*a.* ♂. Pushut. From Griffith's Collection.

"Observed in small flocks. Granivorous. Tongue divided into four or five setæ at its apex."—(Griffith's MS. Notes.)

"Tolerably common at Erzeroum. First appears on the neighbouring hills, and afterwards in the plains, at no great distance from them. Food, the unripe seeds of the *Cichoraceæ*. Arrives in the middle of May, and departs in the middle of September."—(Messrs. Dickson and Ross.)

Genus Pyrrhospiza, *Hodgson, J. A. S. Beng.* XIII. *p.* 953 (1844).

Propyrrhula, *part. Hodgs.*

694. *PYRRHOSPIZA PUNICEA, Hodgson.*

Pyrrhospiza punicea, *Hodgs., J. A. S. Beng.* XIII. *p.* 953 (1844). *Blyth, J. A. S. Beng.* XXIII. *p.* 213; *Cat. B. Mus. A. S. Beng. p.* 121.

Carpodacus puniceus, *Bonap. et Schleg., Monog. Lox. p.* 25, *t.* 27, 28. *Bonap., C. G. Av. p.* 530.

Propyrrhula rubeculoides, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85; *P. Z. S.* (1845), *p.* 36; *Cat. B. of Nep. p.* 110, *et App. p.* 155.

Strobilophaga rubeculoides, *G. R. Gray, Gen. of Birds,* III. *App. p.* 18.

Strobilophaga caucasica, *apud Hodgson, Cat. B. of Nep. p.* 110.

*a.* ♀. Nepal. Presented by B. H. Hodgson, Esq.

Genus Mycerobas, *Cabanis* (1847).

695. *MYCEROBAS MELANOXANTHUS, Hodgson Sp.*

Coccothraustes melanoxanthus, *Hodgs., As. Res.* XIX. *p.* 150 (1836). *Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nep. p.* 105. *Blyth, J. A. S. Beng.* XIII. *p.* 950; *Cat. B. Mus. A. S. Beng. p.* 125. *G. R. Gray, Gen. of Birds,* II. *p.* 358, *t.* 88.

Mycerobas melanoxanthus, *Cabanis. Bonap., C. G. Av. p.* 305. *Gould, Birds of Asia, t.*

Coccothraustes fortirostris, *Lafr.*, *Rev. Zool.* (1840), *p.* 228 (*jun.* ♂).

The Black and Yellow Grosbeak, *Hodgson.*

A. *b. c.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

"The young of this species, till after the second moult, resemble the female; taking the full adult plumage gradually. These birds inhabit the northern region of Nepal, from whence, however, they wander into the central, even in summer, in search of ripe stony fruits."—(Hodgson.)

696. *MYCEROBAS CARNIPES, Hodgson Sp.*

Coccothraustes carnipes, *Hodgs., As. Res.* XIX. *p.* 151 (1836). *Gray's Zool. Misc. p.* 84; *Cat. B. of Nep. p.* 105. *Blyth, J. A. S. Beng.* XIII. *p.* 950; *Cat. B. Mus. A. S. Beng. p.* 125. *G. R. Gray, Gen. of Birds*, II. *p.* 358.

Mycerobas carnipes, *Gould, Birds of Asia, t.*

Coccothraustes speculigerus, *Brandt, Bull. de l'Acad. Imp. des Pétersb.* IX. *p.* 11.

Hesperiphona speculigera, *Bonap., C. G. Av. p.* 506.

Coccothraustes albispecularis, *Mercatorum* (*fide Bonap.*).

The Flesh-footed Grosbeak, *Hodgson.*

A. B. ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

Genus Hesperiphona, *Bonaparte* (1849).

697. *HESPERIPHONA ICTERIOIDES, Vigors Sp.*

Coccothraustes icterioides, *Vigors, P. Z. S.* (1830), *p.* 8. *Gould, Cent. of Birds, t.* 45. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nep. p.* 105. *Blyth, J. A. S. Beng.* XIII. *p.* 950; *Cat. B. Mus. A. S. Beng. p.* 125. *G. R. Gray, Gen. of Birds*, II. *p.* 358.

Hesperiphona icterioides, *Bonap., C. G. Av. p.* 505.

The Icterine Grosbeak, *Gray.*

A. B. ♂. Bengal. From Bax's Collection.

Genus Eophona, *Gould, B. of Asia, pt.* 3 (1851).

698. *EOPHONA MELANURA, Gmel. Sp.*

Loxia melanura, *Gmel., S. N.* I. *p.* 853. *Shaw's Zool.* IX. *p.* 312. *Lath., Hist.* V. *p.* 250.

Eophona melanura, *Gould, Birds of Asia, t.* (1851).
Coccothraustes melanura, *Jard. et Selby, Ill. Orn.* II. *t.* 63. *G. R. Gray, Gen. of Birds,* II. *p.* 358.
Hesperiphona melanura, *Bonap., C. G. Av. p.* 506.
The Black-tailed Grosbeak, *Latham.*

A. ♀. Shanghai. Presented by J. Gould, Esq.

Genus Coccothraustes, *Briss., Orn.* III. *pt.* 1, *p.* 218 (1760).

699. *COCCOTHRAUSTES VULGARIS, Brisson.*

Loxia coccothraustes, *Linn., S. N.* I. *p.* 299.
Coccothraustes vulgaris, *Briss., Orn.* III. *pt.* 1, *p.* 218. *Shaw's Zool.* XIV. *p.* 86. *G. R. Gray, Gen. of Birds,* II. *p.* 358; *Cat. Brit. B. Brit. Mus. p.* 99. *Blyth, Cat. B. Mus. A. S. Beng. p.* 125. *Bonap., C. G. Av. p.* 506. *Cabanis, Cat. B. Mus. Heine, p.* 158.
The Common Grosbeak, *Bewick.*

*a.* England. Presented by J. Gould, Esq.

700. *COCCOTHRAUSTES JAPONICUS, Schlegel.*

Coccothraustes japonicus, *Schleg., Faun. Jap. t.* 51. *Bonap., C. G. Av. p.* 506.

*a.* ♀. Japan. Presented by J. Gould, Esq.

Subfam. II. TANAGRINA, *Vigors.*

Genus Tanagra, *Linn. S. N.* (1766).

701. *TANAGRA EPISCOPUS, Linn.*

Tanagra episcopus, *Linn. S. N.* I. *p.* 316 (*Brisson, Orn.* III. *t.* 1, *f.* 2). *Strickl., Ann. Nat. Hist.* (1847), *p.* 332. *Sclater, P. Z. S.* (1855), *p.* 157.
Gracula glauca, *Sparrm., Mus. Carls. t.* 54.
Tanagra cœlestis, *Spix, Av. Bras. t.* 55, *f.* 1.
Tanagra serioptera, *Swainson.*
The Bishop Tanager, *Latham.*

*a.* Cayenne. From Mr. G. Fradgley.

" The Tanagers live in troops, and are generally seen in orchards and gardens, where they are very destructive to the buds and fruits, which form their food. The nest is carelessly constructed outwardly of sticks, but interiorly of hairs finely twisted together, wherein the parent deposits two or three eggs."

Subfam. III. ALAUDINA, *Vigors.*

Genus CERTHILAUDA, *Swains., Zool. Journ.* (1827), *p.* 344.

CORYDALIS, *Temm.* (182–).

ALAEMON, *Keys. et Blas., Wirbelth. Eur.* (1840).

THINOTRETIS, *Gloger.* (1842).

CHERSOMANES, *Cabanis, Cat. B. Mus. Heine, p.* 126 (1851).

702. *CERTHILAUDA DESERTORUM, Stanley Sp.*

Alauda desertorum, *Stanley, Salt's Trav. Abyss. App. p.* 60 (1811). *Lath., Hist. of Birds,* VI. *p.* 301.

Certhilauda desertorum, *G. R. Gray, Gen. of Birds,* II. *p.* 383. *Rüpp., Syst. Uebers. p.* 78. *Blyth, Cat. B. Mus. A. S. Beng. p.* 133. *Bonap., C. G. Av. p.* 246.

Alaemon desertorum, *Keys. et Blas., Wirbelth. Eur. p.* . *Cabanis, Cat. B. Mus. Heine, p.* 126.

Alauda bifasciata, *Licht., Doubl. p.* 27. *Temm., Pl. Col.* 393. *Rüpp., Atlas, t.* 5.

Saxicola pallida, *Blyth, J. A. S. Beng.* XVI. *p.* 130 (1847).

The Desert Lark, *Stanley.*

*a.* . Kurrachee. Presented by Dr. H. Gould, March, 1855.

*b.* ♀. Desert near Meerpore. From Griffith's Collection.

Colour of the male, light isabella-grey above, more fulvescent on the scapulars, tertiaries, and the two middle tail-feathers, which are shaded with pale dusky along the middle; lores, superciliary stripe, base of upper and lower mandible, throat and belly, white; the breast-feathers dusky, with broad whitish margins concealing the dark colour within; central ear-coverts pale, the rest blackish; wings, beneath, white on the anterior half, the rest dusky; above, deep dusky-black; the primaries and secondaries are pure white at base, and the shorter primaries are also white-tipped, the white increasing in quantity to the secondaries, which are broadly white-tipped; greater wing-coverts also white-tipped, and the small wing-coverts margined with pale fulvescent; tail, except its two middle feathers, deep dusky-black, the outermost feather having its narrow outer web

almost wholly white, and the penultimate a narrow white edge on its outer web. The colours in the female are considerably duller.

Length 9 in., of wing $5\frac{1}{4}$ in., tail $4\frac{1}{8}$ in., bill to gape $1\frac{3}{8}$ in., and tarse the same.

"Runs very fast. Food, seeds. Eyes dark."—(Griffith's MS. Notes.)

Dr. H. Gould writes, that "it is stated to be a fine songster."

Genus Galerida, *Boie, Isis, p.* 321 (1828).

Heterops, *Hodgs., Gray's Zool. Misc. p.* 84 (1844).
Lullula, *p. Kaup, Nat. Syst. p.* 92 (1829).

703. *GALERIDA CRISTATA, Linn. Sp.*

Alauda cristata, *Linn., S. N.* I. *p.* 288. *Lath., Hist.* VI. *p.* 271. (*Gould, Birds of Eur. t.* 165.) *G. R. Gray, Gen. of Birds,* II. *p.* 380. *Hodgs., Cat. B. of Nep. p.* 108.

Galerida cristata, *Boie, Isis, p.* 321. *Bonap., Consp. G. Av. p.* 245. *Theobald, J. A. S. Beng.* XXIII. *p.* 599.

Lullula cristata, *Kaup, Nat. Syst. p.* 92.

Heterops cristatus, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84.

Alauda galerita, *Pallas, Zoogr.* I. *p.* 524.

Alauda undata, *Gmel., S. N.* I. *p.* 797.

Alauda matutina, *Boddaërt.*

Alauda Chendoola, *Franklin, P. Z. S.* (1831), *p.* 119.

Certhilauda Chendoola, *Blyth, J. A. S. Beng.* XIII. *p.* 962; XV. *p.* 41. *Hutton, J. A. S. Beng.* XVI. *p.* 780.

Galerida Chendoola, *Blyth, Cat. B. Mus. A. S. Beng. p.* 133. *Bonap., C. G. Av. p.* 245.

Certhilauda Boysi, *Blyth, J. A. S. Beng.* XV. *p.* 41 (*caged specimen*).

Alauda gulgula, *apud Sykes, P. Z. S.* (1832), *p.* 93. (*female*).

Alauda Deva, *apud Jerd., Madr. Journ.* XI. *p.* 31.

Crested Calandre Lark, *Lath., Hist.* VI. *p.* 304.

Chendul, *Hind. Franklin. Jerdon. Blyth.*

*a. b. c. d.* ♂ ♀. Afghanistan. From Griffith's Collection.

E. ♂. Kurrachee. Presented by Dr. H. Gould, March, 1855.

F. ♂. Bengal. From the Asiatic Society of Bengal.

G. ♀. (*A. gulgula*, Sykes.) Dukhun. Presented by Colonel Sykes.

"Very common in winter in Afghanistan and Scinde; it is likewise abundant in all the north-western provinces of India."—(Hutton.)

"The *Chendul* is found throughout the Peninsula, but is more common in the table-land than below the Ghauts. It is very frequently caged in all parts of the country, and the bird is kept in darkness by several layers of cloth being wrapped round the cage, the custom being, to wrap an additional covering round the cage every year. In this state, it sings very sweetly, and learns to imitate most exactly the notes of various other birds, and animals; even such as the yelping of a dog, the mewing of a cat, &c. It feeds on various insects, chiefly grasshoppers, and in default of this food, on grains and seeds. Irides brown."—(Jerdon.)

"Nest, a little grass in a hole in the ground; eggs four, ovato-pyriform, $\frac{0{\cdot}88}{0{\cdot}66} \times \frac{0{\cdot}82}{0{\cdot}64}$ in., yellowish white, uniformly freckled with greyish yellow and neutral."—(Theobald.)

Genus Alauda, *Linn.*, *S. N.* I. *p.* 287 (1735).

Lullula, *Kaup.*, *Nat. Syst.* (1829), *p.* 92.

Corys, *Reichenbach* (1850).

704. *ALAUDA ARVENSIS*, *Linn.*

Alauda arvensis, *Linn.*, *S. N.* I. *p.* 287. *Lath.*, *Hist. of Birds*, VI. *p.* 265. *Gould*, *B. Eur. t.* 166. *G. R. Gray*, *Gen. of Birds*, II. *p.* 380. *Cat. Brit. B. in Brit. Mus. p.* 114. *Blyth*, *J. A. S. Beng.* XIII. *p.* 961; *Ann. Nat. Hist.* (1847), *p.* 321; *Cat. B. Mus. A. S. Beng. p.* 131. *Bonap.*, *C. G. Av. p.* 245. *Cabanis*, *Cat. B. Mus. Heine*, *p.* 125.

Alauda cœlipeta, *Pallas*, *Zoogr.* I. *p.* 524.

Alauda moreatica, *Von der Muhle.*

Alauda dulcivox, *Hodgs.*, *Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nep. p.* 109.

The Sky-lark, *Latham.*

The Harmonious Lark, *Hodgson.*

A. B. *c. d.* ♂ ♀. Pushut. From Griffith's Collection.

These specimens agree with examples of the Sky-lark that have been examined in the collection of Mr. Gould, from Europe and Erzeroum.

They have also been compared with specimens of *A. moreatica* from Constantinople; the latter differs from *A. arvensis only* in being greyer.

705. *ALAUDA TRIBORHYNCHA*, *Hodgson.*

Alauda triborhyncha, *Hodgs.*, *Gray's Zool. Misc. p.* 84 (1844); *Cat. B. of Nepal, p.* 109.

A. *b.* (*A. triborhyncha*, Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

*c. d.* Bootan. From Pemberton's Collection.

Differs from *A. gulgula* (Frankl.) in being larger, and in having the beak somewhat smaller; the ferruginous colours being brighter, especially on the wings.

Length $6\frac{1}{4}$ to $6\frac{1}{2}$ in., of wing $3\frac{3}{4}$ to $4\frac{2}{10}$ in., tail $2\frac{3}{4}$ in., tarsus $\frac{7}{8}$ in., hind toe $\frac{4}{8}$ in., ditto claw $\frac{5}{8}$ inch.

706. *ALAUDA MALABARICA*, *Scopoli.*

Alauda malabarica, *Scopoli, Sonn. Voy. Ind.* II. *p.* 203, *t.* 113, *f.* 1. *Gmel., S. N.* I. *p.* 795. *Lath., Hist. of Birds*, VI. *p.* 299. *G. R. Gray, Gen. of Birds*, II. *p.* 380. *Blyth, J. A. S. Beng.* XIII. *p.* 962; XV. *pp.* 42, 286.

Alauda gulgula, *Franklin, P. Z. S.* (1831), *p.* 119. *Jerd., Madras Journ.* XI. *p.* 30. *Blyth, J. A. S. Beng.* XI. *p.* 201; XIII. *p.* 961. *Cat. B. Mus. A. S. Beng. p.* 132. *Bonap., C. G. Av. p.* 245. *Layard, Ann. Nat. Hist.* XIII. 2*nd ser. p.* 259.

Alauda gracilis, *Blyth, J. A. S. Beng.* XI. *p.* 201; *Ann. Nat. Hist.* XII. *p.* 166.

Alauda gangetica, *Blyth, J. A. S. Beng.* XII. *p.* 181; *Ann. Nat. Hist.* XII. *p.* 165.

Alauda leiopus *v.* orientalis, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nep. p.* 108. *Blyth, J. A. S. Beng.* XXIII. *p.* 215.

Alauda arvensis, *apud Sundevall, Ann. Nat. Hist.* XVIII. *p.* 259.

The Common Indian Lark.

Poolloo, Ceylon, *Layard.*

A. (*A. gulgula*, Frankl.) Dacca. Presented by Captain R. C. Tytler.

B. (*A. leiopus*, Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

C. *d.* (*A. gracilis*, Blyth.) S. India. Presented by the Asiatic Society of Bengal.

*e.* Drawing. From Dr. F. (B.) Hamilton's Collection.

"This species is common in Bengal, and during February more especially, is brought very numerously to the bazaar, and sold as *Ortolans*. It very closely resembles the British Sky-lark in its song and habits."—(Blyth.)

Mr. Jerdon states that "it is very abundant on the Neilgherries."

"In Ceylon, this is the 'Sky-lark' of Europeans, and is very abundant in all open lands, whether pasture or ploughed; it is also found in the sandy plains of the northern, and among the terraced fields of the central province. It sings sweetly enough, but does not mount to the altitude of the English species. For its nest it selects some depression in the soil, which it lines with fine grasses, and in it deposits from three to five eggs of a brownish-grey colour, profusely streaked and mottled. Axis 9 lines, diameter 7 lines. It breeds in April."—(E. L. Layard.)

707. *ALAUDA ARBOREA, Linn.*

Alauda arborea, *Linn., S. N.* I. *p.* 287. *Lath., Hist. of Birds*, VI. *p.* 269. *Gould, B. of Eur. t.* 167. *G. R. Gray, Gen. of Birds*, II. *p.* 380; *Cat. Brit. B. in Brit. Mus. p.* 115. *Blyth, Cat. B. Mus. A. S. Beng. p.* 131. *Bonap., C. G. Av. p.* 245.

Lullula arborea, *Kaup, Nat. Syst. p.* 92.

Galerita arborea, *Cabanis, Cat. B. Mus. Heine, p.* 125.

Corys arboreus, *Reichenbach.*

The Wood-lark, *Latham.*

*a.* England. Presented by J. Gould, Esq.

Genus Otocoris, *Bonaparte* (1839).

Eremophila, *Boie, Isis* (1828), *p.* 1278.

Phileremos, *Brehm., Deutsch. Vœg.* (1831), *p.* 312.

PHILAMMUS, *G. R. Gray, List of Gen. of Birds, p.* 47 (1840).

708. *OTOCORIS ALPESTRIS, Linn. Sp.*

Alauda alpestris, *Linn. S. N.* I. *p.* 298. *Gould, B. of Eur. t.* 164.

Otocoris alpestris, *G. R. Gray, Gen. of Birds,* II. *p.* 382; *Cat. Brit. B. in Brit. Mus. p.* 117. *Bonap., C. G. Av. p.* 246.

Otocorys alpestris, *Cabanis, Cat. B. Mus. Heine, p.* 121.

Alauda flava, *Gmel., S. N. p.* 800.

Alauda nivalis, *Pallas, Zoogr.* I. *p.* 519.

The Shore-lark, *Latham.*

*a.* Helgoland. Presented by J. Gould, Esq.

709. *OTOCORIS PENICILLATA, Gould Sp.*

Alauda penicillata, *Gould, P. Z. S.* (1837), *p.* 126. *Dickson et Ross, P. Z. S.* (1839), *p.* 120. *G. R. Gray, Gen. of Birds,* II. *p.* 382, *t.* 92. *Blyth, Cat. B. Mus. A. S. Beng. App. p.* 337.

Otocoris scriba, *Bonap., Itin.* I. *p.* 62, *t.* xii.; *C. G. Av. p.* 246.

Alauda alpestris, *Gmel.* (*young*).

A. adult. Persia. Presented by John Gould, Esq.

*b. c. d.* adult and young. Kumaon. Presented by Captain R. Strachey.

*e. f.* jun. Nepal (No. 968, Hodgs. Cat.). Presented by B. H. Hodgson, Esq., 1853.

" The males differ from the females in being of a brighter colour, and in having the black feathers on the top of the head much more distinctly marked. The yellow gorget of both in winter is bright, and in summer remarkably faint, while the purple on the nape is *vice versâ*.

" Numerous at Erzeroum. Food, seeds. During the hot months, they are found on the neighbouring mountains, from which they are driven down to the plain in winter in quest of food, which consists then of the grain found in the dung of cattle, the ground being at that time covered with snow several feet in depth. They fly in companies of from three to twelve birds; are very familiar, especially so in winter, when they may be killed easily with an ordinary whip.

When approached, or in the agonies of death, they erect their horn-shaped crest quite perpendicularly, with the tips curved inwards. They run on the snow with surprising rapidity: as soon as the snow has melted on the plain, they return to the mountains."—(Messrs. Dickson and Ross, P. Z. S., 1839, p. 120.)

710. *OTOCORIS LONGIROSTRIS, Gould.*

Otocoris longirostris (*Gould*), *Moore, P. Z. S.* (1855), *p.*

Hab. Neighbourhood of Agra. In J. Gould's Collection.

*O. longirostris.*—Allied in colour to *O. penicillata*, and in the black markings of the head and breast; but differs in its larger size, considerably more lengthened bill, wings, and tail, and thicker toes; and in the feathers of the back being broadly centred with brown.

Length 7¾ in., of wing 5 in., of tail 3¾ in., bill to frontal plumes $\frac{6}{10}$, to gape $\frac{3}{4}$, tarsus $\frac{10}{12}$, middle toe and claw $\frac{8}{12}$, and hind ditto $\frac{7}{10}$ of an inch.

Genus Melanocorypha, *Boie, Isis* (1825).

Calandra, *Lesson, Compl. Buff.* (1837).

Saxilauda, *Lesson, Compl. Buff.* (1837).

Londra, *Sykes, P. Z. S.* (1838), *p.* 114.

Corydon, *Gloger* (1842).

711. *MELANOCORYPHA CALANDRA, Linn. Sp.*

Alauda Calandra, *Linn. S. N.* I. *p.* 288. *Lath., Hist. of Birds*, VI. *p.* 290.

Melanocorypha Calandra, *Boie, Isis* (1825), *p.* . *G. R. Gray, Gen. of Birds*, II. *p.* 381. *Blyth, Cat. B. Mus. A. S. Beng. p.* 131. *Bonap., C. G. Av. p.* 242. *Cabanis, Cat. B. Mus. Heine, p.* 123.

Londra Calandra, *Sykes, P. Z. S.* (1838), *p.* 114.

The Calandra Lark, *Latham.*

*a.* Italy. Presented by P. L. Sclater, Esq., July, 1854.

Genus Calandrina, *Blyth, J. A. S. Beng.* XXIV. *p.* 265. (1855).

712. *CALANDRINA TORQUATA, Blyth.*

Melanocorypha torquata, *Blyth, J. A. S. Beng.* XVI. *p.* 476 (1847); *Cat. B. Mus. A. S. Beng. App. p.* 10. *Hutton, J. A. S. Beng.* XVI. *p.* 780.

Calandrina torquata, *Blyth, J. A. S. Beng.* XXIV. *p.* 265.

? Melanocorypha bimaculata, *Menetries, Cat. p.* 37.

Afghanistan Lark, *Blyth, J. A. S. Beng.* XIII. *p.* 962.

A. *b. c.* Pushut. From Griffith's Collection.

Differs from. *M. Calandra* in its smaller size, smaller bill, and general paler hue; its shorter wing; the black of the sides of the breast meeting across: the external web of the outermost tail-feather not white, as in *M. Calandra.*

Length 7 in., of wing 4⅛ in., tail 2¼ in., and tarse under 1 in.

"This bird is a summer visitor at Candahar, and is said to come from Bokhara: the Afghans keep them in cages."—(Capt. Hutton.)

Genus Alaudala, *Blyth, MS. Indian Ornith. p.* (1855).

713. *ALAUDALA RAYTAL, F.* (*Buch.*) *Hamilton Sp.*

Alauda Raytal, *F.* (*Buch.*) *Hamilton, J. A. S. Beng.* XIII. *p.* 962 (1844); *MSS.* I. *p.* 18. *Blyth, J. A. S. Beng.* XV. *p.* 40.

Calandrella Raytal, *Blyth, Cat. B. Mus. A. S. Beng. p.* 132.

Mirafra Raytal, *G. R. Gray, Gen. of Birds,* III. *App. p.* 18.

Alauda pispoletta, *apud Bonap., C. G. Av. p.* 244.

Aggia Lark, var. A., *Lath., Hist. of Birds,* VI. *p.* 308.

The Sand Lark, *Blyth.*

Raytul, Hind., *F.* (*Buch.*) *Hamilton.*

A. B. Banks of the Hooghly. From the Asiatic Society of Bengal.

*c.* Nepal (No. 911, Hodgs. Cat.). Presented by B. H. Hodgson, Esq., 1853.

*d.* (*A. Raytal,* F. (B.) Ham.) Drawing. From Dr. F. (B.) Hamilton's Collection.

"This bird abounds on the white sand-dunes of the Hooghly, where the stream, unchecked by the tide, deposits only fine sand, and the alluvial country round (from this cause) is everywhere light and arenaceous; this Sand Lark being scarcely ever seen except on the flat deposits of white sand within each bend of the stream; but there they are very numerous, and (as usual) their colour approximates that of the surface. It is not much of a musician; but often ventures on short snatches of song, frequently without rising from

the ground; and I never saw it mount high like its musical neighbour the *A. malabarica*, whose habits and song closely resemble those of *A. arvensis*. The haunts of these two species border, and they may commonly be seen and heard at the same time; but this will be on the confines of each other's territory."—(Blyth.)

Genus Coryphidea, *Blyth, J. S. A. Beng.* XIII. *p.* 960 (1844).

Calandrella, *Kaup, Entw. G. Eur. Thierw.* (1829).

Calandritis, *Cabanis, Cat. B. Mus. Heine, p.*122 (1851).

714. *CORYPHIDEA CALANDRELLA, Bonelli Sp.*

Alauda Calandrella, *Bonelli, Mém. de l'Acad. de Turin. Bonap., C. G. Av. p.* 244.

Alauda brachydactyla, *Temm., Man. d'Orn. p.* 164 (1815). *Lath., Hist. of Birds,* VI. *p.* 302. *G. R. Gray, Gen. of Birds,* II. *p.* 380. *Hodgs., Cat. B. of Nep. p.* 109.

Calandrella brachydactyla, *Kaup, Entw. G. Eur. Thierw. p.* . *Blyth, J. A. S. Beng.* XIV. *p.* 556; XVIII. *p.* 82; XXIV. *p.* 258. *Cat. B. Mus. A. S. Beng. p.* 132. *Hutton, J. A. S. Beng.* XVI. *p.* 780.

Calandritis brachydactyla, *Cabanis, Cat. B. Mus. Heine, p.* 122.

Alauda arenaria, *Stephens, Shaw's Zool.* X. *p.* 515 (1817).

Alauda Baghaira, *F.* (*Buch.*) *Hamilton, MSS.* II. *p.* 112 (1810).

Emberiza Baghaira, *Franklin, P. Z. S.* (1831), *p.* 119.

Corypha Baghaira, *Hodgs., Gray's Zool. Misc. p.* 84 (1844). *Blyth, J. A. S. Beng.* XI. *p.* 200; *Ann. Nat. Hist.* XII. *p.* 166.

Coryphidea Baghaira, *Blyth, J. A. S. Beng.* XIII. *p.* 961.

Calandritis Baghaira, *Cabanis, Cat. B. Mus. Heine, p.* 122.

Alauda dukhunensis, *Sykes, P. Z. S.* (1832), *p.* 93. *Jerdon, Madr. Journ.* XI. *p.* 32.

Emberiza olivacea, *Tickell, J. A. S. Beng.* II. *p.* 578 (1833).

Baag-geyra Lark, *Lath., Hist. of B.* VI. *p.* 307.

The Short-toed Lark, *Latham.*

Ortolan of Europeans in India.

Kirwa Bunting, *Tickell.*

The Social Lark, *Jerdon.*

Baghairi, Hind., *F.* (*Buch.*) *Hamilton. Blyth. Jerdon.*

A. (*A. dukhunensis,* Sykes.) Dukhun. Presented by Colonel Sykes.

*b. c.* (*C. Baghaira,* Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

*c. d. e. f.* Bolan Pass. From Griffith's Collection.

*g. h.* Kurrachee. Presented by Dr. H. Gould.

" This bird appears on the table-land of Southern India in October. It associates in vast flocks, frequenting the bare grass-downs, and is fond of damp spots, as at the edge of tanks, &c.; it also frequents grain-fields, and almost always retires to them for shelter during the heat of the day; from whence it does not in general issue again till next morning. They are so numerous occasionally, that four, five, or six dozens are sometimes killed at a shot, and numbers are often netted in some parts of the country. When in good condition, it is highly esteemed for the table. It does not breed in this part of India, and quits it for the north in March."—(Jerdon.)

" This bird progresses on the ground as much by hopping as by running, and has a true Lark's chirrup. It is caught in immense numbers during March, near Calcutta, for the table."—(Blyth.)

The Rev. T. Phillips, in his MS. Notes, states, that " the Ortolan visits the neighbourhood of Muttra (in N.W. Provinces) in the cold season only."

" Found in flocks in Candahar in the winter."—(Hutton.)

" Seen at Erzeroum in large flocks; only noticed from 21st of April to 28th May. The cock is of a brighter colour than the hen, and has its ears and the spot on the breast much darker."—(Messrs. Dickson and Ross, P. Z. S. (1839), p. 120.)

Genus Megalophonus, *Gray, List of Gen. of Birds* (1841).

Brachonyx, *Swains., Zool. Journ. p.* 345 (1827).

Corypha, *Gray, List of Gen. of Birds* (1840).

715. *MEGALOPHONUS RUFICEPS, Rüppell Sp.*

Alauda ruficeps, *Rüpp., Faun. Abyss. t.* 38, *f.* 1. *Blyth, J. A. S. Beng.* XXIV. *p.* 258.

Megalophonus ruficeps, *Rüpp., Syst. Uebers, p.* 79. *G. R. Gray, Gen. of Birds,* III. *App. p.* 18. *Bonap., C. G. Av. p.* 243.

A. Abyssinia. From Harris's Collection.

Genus Mirafra, *Horsf., Trans. Linn. Soc.* XIII. *p.* 159 (1820).
Plocealauda, *Hodgs., Gray's Zool. Misc. p.* 84 (1844).
Geocoraphus, *Cabanis, Orn. Not. p.* 328 (1847).

716. *MIRAFRA JAVANICA, Horsfield.*

Mirafra javanica, *Horsf., Trans. Linn. Soc.* XIII. *p.* 159 (1820). *Steph., Shaw's Zool.* X. *p.* . *Lath., Hist. of Birds,* VI. *p.* 292. *G. R. Gray, Gen. of Birds,* II. *p.* 383. *Bonap., C. G. Av. p.* 243. *Blyth, J. A. S. Beng.* XXIV. *p.* 259.
Alauda Mirafra, *Temm., Pl. Col.* 305.
Geocoraphus javanicus, *Cabanis, Orn. Not. p.* 328; *Cat. B. Mus. Heine, p.* 126.
The Javan Lark, *Latham.*
Branjangan, Java, *Horsfield.*

A. Java. From Dr. Horsfield's Collection.

717. *MIRAFRA ERYTHROPTERA, Jerdon.*

Mirafra javanica, *apud Jerd., Madr. Journ.* XI. *p.* 33.
Mirafra erythroptera, *Jerd., Madr. Journ.* XIII. *pt.* 2, *p.* 136 (1844); *Ill. Ind. Orn. t.* 38; *J. A. S. Beng.* XIII. *p.* 958. *G. R. Gray, Gen. of Birds,* III. *App. p.* 18. *Blyth, Cat. B. Mus. A. S. Beng. p.* 133. *J. A. S. Beng.* XXIV. *p.* 259. *Bonap., C. G. Av. p.* 243.
The Red-winged Lark, *Jerdon.*
Ageea, Hind., *Jerdon.*
Junglee Ageea, Hind., *Jerdon.*
Chinna Eeli-jitta, Telugu, *Jerdon.*

A. B. S. India. From the Asiatic Society of Bengal.

"The Red-winged Lark is tolerably common in low jungles in the neighbourhood of Jaulnah, and generally through the Deccan; I also observed it in some low jungle at the very base of the Eastern Ghats, and my shikarees have procured specimens from the hilly regions, where, they say, it abounds. It is never, that I am aware of, found in open plains, nor does it frequent gardens like the more common species, *M. affinis.* I may remark, that I found this latter—the common species—within a mile, or less, of the spot where I first observed *M. erythroptera* in the Carnatic; but not one did I see encroaching on the ground of the other. The Red-winged Lark

perches frequently on shrubs, whence it occasionally rises a short distance, and descends again with outspread wings, its bright rufous quills glittering in the sun. It is found single or in pairs; is a wary bird, and, when observed, it hides itself behind a bush, and, if followed, soon contrives to conceal itself from the sportsman. It feeds on various kinds of seeds.

"This and another species are called in Telugu, *Eeli-jitta;* the present one, distinguished by its smaller size, being called *Chinna Eeli-jitta.* The name is derived from their note, which, in both species, is a kind of prolonged whistle."—(Jerdon.)

718. *MIRAFRA AFFINIS, Jerdon.*

Mirafra affinis, *Jerd., Madr. Journ.* XIII. *pt.* 2, *p.* 136 (1844); *Ill. Ind. Orn. p. to t.* 38; *J. A. S. Beng.* XIII. *p.* 959. *Blyth, Cat. B. Mus. A. S. Beng. p.* 133; *J. A. S. Beng.* XXIV. *p.* 259. *G. R. Gray, Gen. of Birds,* III. *App. p.* 18. *Bonap., C. G. Av. p.* 243. *Layard, Ann. Nat. Hist.* XIII. *n. s. p.* 259.

Leepee, Plains, *Tickell.*

A. B. S. India. From the Asiatic Society of Bengal.

"This species is exceedingly abundant in the West Coast, and throughout the Carnatic, frequenting open spaces in the jungles, gardens, &c."—(Jerdon.)

"Nest ordinary, of grasses, four inches diameter, placed on the ground, under shelter of clods, tufts of grass, &c., in fallow fields or open patches in jungles. Eggs, three or four, ordinary, rather lengthened, $\frac{13}{16} \times \frac{9}{16}$ in., dirty ashy-white, with stains, smudges, and specks of dusky, ashy, and rusty-brown."—(Tickell, J. A. S. Beng. XVI. p. 301.)

"In Ceylon, this species is abundant about Tangalle. I never saw it in the hills. It is not easily distinguished from our other larks until taken in the hand: it has one habit, however, by which I always distinguished it when alive; on being flushed, it soars up, uttering a pleasing song, and wings its way towards some tree, on to which it descends, its legs pendent, and wings fluttering rapidly, and singing the while with all its might; the instant, however, it touches its perch, always the highest naked branch, its song ceases, and it stands on the look-out, ready for flight on the least alarm."—(Layard.)

719. *MIRAFRA CANTILLANS, Jerdon.*

Mirafra cantillans, *Jerdon, J. A. S. Beng.* XII. *p.* 181 (1843); XIII. *p.* 960; *Madr. Journ.* XIII. *pt.* 2, *p.* 135. *Blyth, Ann. Nat. Hist.* XII. *p.* 166; *Cat. B. Mus. A. S. Beng. p.* 134; *J. A. S. Beng.* XXIV. *p.* 259. *G. R. Gray, Gen. of Birds,* III. *App. p.* 18. *Bonap., C. G. Av. p.* 243.

Alauda Chendoola, *apud Jerd., Madr. Journ.* XI. *p.* 30.

Agghun, Hind., *Jerdon.*

A. S. India. From the Asiatic Society of Bengal.

"The *Agghun* is very common in the Carnatic, and also in the Northern Circars, I believe; but is rarely met with on the great table-land of Southern India. It is frequently caught when young, and caged for its song, which is particularly fine and sweet; it also imitates the notes of other birds."—(Jerdon.)

"Also inhabits Bengal, and is a favourite cage-bird with the natives for its sweet and plaintive, but not much varied, song."—(Blyth.)

720. *MIRAFRA ASSAMICA, McClelland.*

Mirafra assamica, *McClelland, P. Z. S.* (1839), *p.* 162. *Blyth, J. A. S. Beng.* XI. p. 199; XIII. *p.* 958; XXIV. *p.* 259; *Ann. Nat. Hist.* XII. *p.* 166; XX. *p.* 321; *Cat. B. Mus. A. S. Beng. p.* 134. *G. R. Gray, Gen. of Birds,* II. *p.* 383. *Bonap., C. G. Av. p.* 243.

Plocealauda typica, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84.

Mirafra javanica, *apud Hodgson. Cat. B. of Nep. p.* 109.

Alauda Aggia, *F.* (*B.*) *Hamilton MSS.* I. *p.* 84.

Finch Lark, *Lath., Hist. of Birds,* VI. *p.* 307.

Aggia Lark, *Lath., id. p.* 308.

Aggia, Hind., (*B.*) *Hamilton.*

Bhatul, Muttra, *Rev. T. Phillips.*

A. Assam (type). From McClelland's Collection.

B. *c. d. e.* (*P. typica,* Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

*f.* Barrackpore. Presented by Captain R. C. Tytler.

*g.* Drawing. From Dr. F. (B.) Hamilton's Collection.

"Common in the neighbourhood of Calcutta [and Nepal]. It has

none of the sprightliness of the true Larks, but (as observed in captivity) is a thick-built, heavy, and inactive bird, prone to hide itself from observation by creeping under other birds, or availing itself of whatever sort of cover there happens to offer."—(Blyth.)

The Rev. T. Philipps, in his MS. Notes, states that "this is common about Muttra, and may be observed, in the morning and evening, perched on a naked bank, and there pouring forth its song, which consists of about eight notes, the first six very quickly repeated, and the two last slowly, thus—*twĕe twĕe twĕe twĕe twĕe twĕe twēēē twēēē.* It breeds here, having observed specimens but just fledged. It runs crouching very near the ground, and hides itself behind anything that offers."

Genus Spizalauda, *Blyth, J. A. S. Beng.* XXIV. *p.* 258 (1855).

721. *SPIZALAUDA DEVA, Sykes Sp.*

Alauda Deva, *Sykes, P. Z. S.* (1832), *p.* 92.

Mirafra Hayi, *Jerdon, Madr. Journ.* XIII. *pt.* II. *p.* 136 (1844); *J. A. S. Beng.* XIII. *p.* 959. *Blyth, Cat. B. Mus. A. S. Beng. p.* 133. *G. R. Gray, Gen. of Birds,* III. *App. p.* 18.

Spizalauda Hayi, *Blyth, J. A. S. Beng.* XXIV. *p.* 258.

A. B. (*A. Deva,* Sykes.) Dukhun. Presented by Colonel Sykes.

C. (*M. Hayi,* Jerdon.) S. India. From the Asiatic Society of Bengal.

The above determination has also been verified by the comparison of specimens of Jerdon's *M. Hayi* in the British Museum and in the collection of John Gould, Esq.

Genus Ammomanes, *Cabanis, Cat. B. Mus. Heine, p.* 125 (1851).

722. *AMMOMANES PHŒNICURA, Franklin Sp.*

Mirafra phœnicura, *Frankl., P. Z. S.* (1831), *p.* 119. *Sykes, P. Z. S.* (1832), *p.* 92. *Jerd., Madr. Journ.* XI. *p.* 32. *G. R. Gray, Gen. of Birds,* II. *p.* 383. *Blyth, J. A. S. Beng.* XIII. *p.* 960; *Cat. B. Mus. A. S. Beng. p.* 134. *Bonap., C. G. Av. p.* 243.

Ammomanes phœnicura, *Blyth, J. A. S. Beng.* XXIV. *p.* 258.

The Red-bellied Lark, *Jerdon.*

Ageea, Hind., *Jerdon.*
Koowan Leepee, Plains, *Tickell.*

A. B. Dukhun. Presented by Colonel Sykes.

"The Red-bellied Lark is found over all the Peninsula, but is much more common in the Deccan than below the Ghauts. It frequents the open plains, preferring the barest spots, ploughed lands, stubble-fields, and beds of nullahs. It sometimes, though rarely, perches on bushes. It feeds chiefly on seeds of various kinds, also on insects occasionally. It frequently ascends suddenly in the air by a few interrupted strokes of its wings, and uttering at the time a pleasant loud whistle-like note, sounding something like *too-whee;* it then descends with a sudden fall, changing its note to a low bark-like warbling; when close to the ground, it again repeats this, and so on for several times."—(Jerdon.)

"This bird is characterized by the lightness, shortness, abruptness, and sudden ascents and descents of its flight."—(Sykes.)

"Nest flat, shallow, circular, 4 inches in diameter; placed in meadows in long grass, which it entwines over the nest, leaving only a small passage open. Eggs four, lengthened, blunted, $\frac{7}{8} \times \frac{5}{6}$; dirty greenish-white, thickly sprinkled with pale and dark-brown confluent spots. June."—(Tickell, J. A. S. Beng. XVII. p. 301.)

## 723. *AMMOMANES PHŒNICUROÏDES, Blyth.*

Mirafra phœnicuroïdes, *Blyth, J. A. S. Beng.* XXII. *p.* 583 (1853).
Ammomanes phœnicuroïdes, *Blyth, J. A. S. Beng.* XXIV. *p.* 258.
? Alauda pallida, *Ehrenberg.*
? Alauda deserti, *Licht. Doubl. p.* 28.
? Alauda isabellina, *Temm., Pl. Col.* 244, *f.* 2.
? Alauda lusitania, *Gmelin. Degland.*

A. Pushut. B. Bolan Pass. From Griffith's Collection.

Affined to *A. phœnicura*, Franklin, but the general hue less rufescent; the under-parts pale fulvous grey, albescent on the throat; tail brown, faintly rufescent at its extreme base, and on the exterior web of the outermost feather; broad margins to inner webs of the primaries and secondaries, with the axillaries, also pale rufescent, imparting this hue to the inner surface of the wing.

Length about 6 in., of wing $3\frac{7}{8}$ in., the short first primary $1\frac{1}{8}$ in., and $1\frac{5}{8}$ in. shorter than the second, which is $\frac{1}{4}$ in. less than the next three, which are equal; tail $2\frac{3}{4}$ in., bill to gape $\frac{5}{8}$ in., tarse $\frac{7}{8}$ in., and hind claw $\frac{5}{16}$ of an inch.

"Feeds on grain and insects. On rocks and stony places. Claws much worn. Legs brown."—(Griffith's MS. Notes.)

Mr. Blyth states that it also inhabits Cashmere.

Genus Pyrrhulauda, *A. Smith, Zool. S. Africa* (1829).

Megalotis, *Swains., Zool. Journ. p.* 343 (1827).
Coraphites, *Cabanis* (1847).
Pyrrhulalauda, *Rüppell* (1842).
Pyrgilauda, *Verreaux.*

724. *PYRRHULAUDA GRISEA, Scopoli Sp.*

Alauda grisea, *Scopoli.* (*Sonn. Voy. Ind.* II. *t.* 113, *f.* 2).
Pyrrhulauda grisea, *G. R. Gray, Gen. of Birds,* II. *p.* 381. *Hodgs., Cat. B. of Nep. p.* 109. *Blyth, J. A. S. Beng.* XIII. *p.* 958; *Cat. B. Mus. A. S. Beng. p.* 134. *Bonap., C. G. Av. p.* 512. *Layard, Ann. Nat. Hist.* XIII. *n.s. p.* 259. *Tytler, Ann. Nat. Hist.* XIII. *n.s. p.* 369.
Coraphites griseus, *Cabanis, Cat. B. Mus. Heine. p.* 124,
Alauda gingica, *Gmel., S. N.* I. *p.* 795. *Lath., Ind. Orn.* II. *p.* 496; *Gen. Hist.* VI. *p.* 300; *Shaw's Zool.* X. *p.* 523. *Sundevall, Physiogr. Sälls., Tidsk.* (1837); *Ann. Nat. Hist.* XVIII. *p.* 259.
Fringilla crucigera, *Temm. Pl. Col.* 269, *f.* 1. *Sykes, P. Z. S.* (1832), *p.* 94.
Pyrrhulauda crucigera, *Hodgs., Gray's Zool. Misc. p.* 84. *Jerdon, Madr. Journ.* XI. *p.* 35. *Blyth, J. A. S. Beng.* XI. *p.* 201; *Ann. Nat. Hist.* XII. *p.* 166. *Burgess, P. Z. S.* (1854), *p.* 255.
Gingi Lark, *Lath., Syn.* IV. *p.* 380.
Duree Finch, *Lath., Gen. Hist.* VI. *p.* 115, *t.* 97. *F. Hamilton, MS.* I. *p.* 81.
Black-bellied Finch-lark, *Jerdon.*
Squat Finch-ortolan, of some Europeans in India, *Jerdon.*
Duree, Beng., *F.* (*Buchanan*) *Hamilton.*
Chak Bharai and Dhulo Chata, Beng. *Blyth.*

Decora, Hind. *Jerdon*, vulgo.

Dhubuk Chari (*i. e.* Squat Sparrow), Hind., *Jerdon*.

A. *b.* ♂. ♀. Dukhun. Presented by Colonel Sykes.

C. ♀. Bengal. From the Asiatic Society of Bengal.

*d. e.* ♂. Nepal. (No. 809, Hodgs. List). Presented by B. H. Hodgson, Esq.

*f.* ♂. Bengal. Presented by Captain R. C. Tytler.

*g.* ♂. ♀ Drawing. From F. (Buch.) Hamilton's Collection.

"This curious little bird is extremely common in all parts of India, frequenting the open plains and cultivated grounds, and common on the roads or any other bare spot. Its habits are quite those of a *Lark*. It is still more remarkable than the *Mirafra phœnicura*, for the sudden ascents and descents of its flight, mounting up some height by a few flappings of its wings, and then descending almost perpendicularly till close to the ground, when it again rises as before, and repeats this several times. In general, it takes but a short flight, and on alighting, squats close to the ground. It occasionally may be seen seated on a house-top; but I never saw it perch except on one occasion, when I observed some twelve or fifteen of them perched on a low tree close to a house in cantonment. This was during the height of the hot weather. I obtained the nest and eggs in February. The nest was composed of woven thread, mingled with some fibres of grass, and one or two small fragments of cloth. The sides are hardly raised at all; it was placed in a slight hollow on the open plain, near a river, and contained two eggs of a slight greenish-grey tint, spotted with brown, chiefly at the larger end."—(Jerdon.)

"This bird has the habit of squatting on the high roads, and almost allowing itself to be ridden over ere it rises. Coleopterous insects, maggots, and seeds of *Panicum spicatum* were found in the stomach. This bird has the straight hind claw of a Lark."—(Sykes.)

"I shot a specimen of this elegant little Lark as it settled on the ground, after singing for some time with expanded wings. In its flight and motions on the ground it completely resembles a Lark."—(Sundevall.)

"Breeds in the vicinity of Calcutta, and the nestling plumage of the young definitively refers the genus to the Lark family: it essentially resembles that of the true Larks."—(Blyth.)

"It is found during the whole year in Bengal."—(F. Buchanan Hamilton.)

"Common in open fields. They conceal themselves by lying flat on the ground."—(Capt. R. C. Tytler.)

"This little Lark breeds in Western India, during the months of January and February, building its nest in a hollow in the grassy plains which it inhabits."—(Lieut. Burgess.)

"Found also in Ceylon, and met with in the northern and eastern parts of the island, where, on the open lands, it is very abundant, being often seen in flocks of fifty or sixty individuals. They are fond of dusting themselves on roads, and lie so close that one is frequently within a step of treading on them before they rise. I believe they are migratory, at least I never could find any breeding here, and I have seen flocks careering from the direction of the continent when I have been out at sea."—(Layard.)

## Subfam. IV. EMBERIZINA, *Moore.*

Genus Spinus, *Mœhring, Gen. Av. p.* 41 (1752).

Miliaria, *Brehm., Isis* (1828), *p.* 1278.
Cynchramus, *Bonap., List of B. p.* 35 (1838) (*nec. Boie*).
Crithophaga, *Cabanis, Cat. B. Mus. Heine, p.* 127 (1851).

### 725. *SPINUS MILIARIUS, Linn. Sp.*

Emberiza miliaria, *Linn., S. N.* I. *p.* 308. *Lath., Hist.* V. *p.* 305. *Gould, B. of Eur. t.* 171. *G. R. Gray, Gen. of Birds,* II. *p.* 377; *Cat. Brit. B. Brit. Mus. p.* 110. *Blyth, Cat. B. Mus. A. S. Beng. p.* 127.
Spinus miliarius, *Mœhring. G. R. Gray, List Gen. of Birds* (1841), *p.* 61.
Cynchramus miliarius, *Bonap., List of B. p.* 35; *C. G. Av. p.* 463.
Crithophaga miliaria, *Cabanis, Cat. B. Mus. Heine, p.* 127.
The Common Bunting, *Montagu.*

A. Persia. Presented by J. Gould, Esq.

"Common at Erzeroum in April, in the neighbouring fields. Feeds on corn."—(Messrs. Dickson and Ross, P. Z. S. (1839), p. 121.)

Genus Emberiza, *Linn., S. N.* (1748).

Cia, Citrinella, Orospina, et Cirlus, *Kaup, Naturl. Syst.* (1829).

Schœnicola, *Bonap., C. G. Av. p.* 463 (1851).

Glycispina, *Cabanis, Cat. B. Mus. Heine, p.* 128 (1851).

726. *EMBERIZA CIRLUS, Linn.*

Emberiza cirlus, *Linn. S. N.* I. *p.* 311. *Lath., Hist.* V. *p.* 300. *Gould, Birds of Eur. t.* 175. *G. R. Gray, Gen. of Birds,* II. *p.* 377 ; *Cat. Brit. B. Brit. Mus. p.* 112. *Blyth, Cat. B. Mus. A. S. Beng. p.* 128. *Bonap., C. G. Av. p.* 465. *Cabanis, Cat. B. Mus. Heine, p.* 128.

The Cirl Bunting, *Montagu.*

*a.* ♂. England. Presented by J. Gould, Esq.

727. *EMBERIZA SCHŒNICLUS, Linn.*

Emberiza schœniclus, *Linn. S. N.* I. *p.* 311. *Lath., Hist.* V. *p.* 306. *Gould, Birds of Eur. t.* 183. *G. R. Gray, Gen. of Birds,* II. *p.* 377 ; *Cat. Brit. B. Brit. Mus. p.* 110. *Blyth, Cat. B. Mus. A. S. Beng. p.* 128.

Cynchramus schœniclus, *Boie, Isis* (1826), *p.* 974. *Cabanis, Cat. B. Mus. Heine, p.* 130.

Emberiza arundinacea, *Gmel., S. N.* I. *p.* 881.

Schœnicola arundinacea, *Bonap., C. G. Av. p.* 463.

The Black-headed Bunting, *Bewick.*

*a.* ♂. England. Presented by J. Gould, Esq.

728. *EMBERIZA PITHYORNIS, Pallas.*

Emberiza pithyornis, *Pallas, Zoogr. Ross. As. t.* 44. *Gmel., S. N.* I. *p.* 875. *Gould, Birds of Eur. t.* 180. *G. R. Gray, Gen. of Birds,* II. *p.* 377. *Bonap., C. G. Av. p.* 466. *Cabanis, Cat. B. Mus. Heine, p.* 128.

Emberiza leucocephala, *Gmel., Nov. Comm. Petrop.* XV. *p.* 480, *t.* 23, *f.* 3.

Fringilla Dalmatica, *Gmel., S. N.* I. *p.* 920. *Lath., Hist.* VI. *p.* 56.

Emberiza Sclavonica, *Degland* (*ex Brisson*).

Emberiza Bonapartii, *Barthelemy de la Pommer.*
Emberiza albida, *Blyth, J. A. S. Beng.* XVIII. *p.* 811 (1849); *Cat. B. Mus. A. S. Beng. p.* 128.

A. B. ♂. ♀. Cabul. *c. d.* ♀. Pushut. From Griffith's Collection.

729. *EMBERIZA CIA, Linn.*

Emberiza Cia, *Linn., S. N.* I. *p.* 310. *Lath.,* V. *p.* 302. *Gould, Birds of Eur. t.* 179. *G. R. Gray, Gen. of Birds,* II. *p.* 377. *Blyth, J. A. S. Beng.* XV. *p.* 39. *Bonap., C. G. Av. p.* 466. *Cabanis, Cat. B. Mus. Heine, p.* 128.
Euspiza Cia, *Blyth, Cat. B. Mus. A. S. Beng. p.* 130.

A. S. Europe. Presented by J. Gould, Esq.
B. C. ♂. ♀. Himalaya. From Dr. Royle's Collection.
D. *e.* ♂. ♀. Pushut. From Griffith's Collection.

730. *EMBERIZA STRACHEYI, Moore.*

Emberiza Stracheyi, *Moore, P. Z. S.* (1855), *p.* , *t.* .

A. B. C. *d.* ♂. ♀. Kumaon. Presented by Captain R. Strachey.

*E. Stracheyi,* Moore. Affined to *E. Cia,* but differs in having the markings about the head more broadly developed, and of a deeper black colour, and forming three well-defined black bars, as seen laterally; the throat and sides of neck being whiter, and ashy on the front of the neck only, the breast and the rest of the underparts being uniform bright rufous-brown, which colour is also prominent on the back, and especially on the scapulars, rump, and upper tail-coverts.

Length 6 in., of wing 3⅝ in., tail 3 in., and tarsus ¾ of an inch.

731. *EMBERIZA CIOPSIS, Bonaparte.*

Emberiza Ciopsis, *Bonap., C. G. Av. p.* 466 (1850).
Emberiza Cioides, *apud Temm. et Schleg., Faun. Japon. t.* 59, ♂ ♀.

*a. b.* ♂. ♀. Japan. Presented by J. Gould, Esq.

732. *EMBERIZA CASTANICEPS*, *Gould.*

Emberiza castaniceps, (*Gould*). *Moore, P. Z. S.* (1855), *p.* .

A. ♂. China. Presented by J. Gould, Esq.

*E. castaniceps.* Affined to *E. Cia.* Crown and ear-coverts deep chestnut-brown; superciliary streak, base of upper mandible, throat, front and sides of neck, white; behind the ears and nape, ashy; a spot before the eye, and streak from base of lower mandible down the sides of the throat, black; back, scapulars, and rump, rufous-brown, the two former having blackish centres to the feathers; wings dusky-black, the feathers margined with rufous-brown; tail dusky-black, the two centre feathers broadly margined with rufous-brown, the two outer tipped obliquely with white for nearly the whole length; breast and flanks rufous-brown, and paling towards the centre of the abdomen; upper mandible dark horn, lower paler.

Length 5½ in., of wing 2⅞ in., tail 2⅝ in., and tarsus ¾ of an inch.

733. *EMBERIZA PERSONATA*, *Temminck.*

Emberiza personata, *Temm., Pl. Col.* 580. *G. R. Gray, Gen. of Birds*, II. *p.* 377. *Temm. et Schleg., Faun. Japon. t.* 59, *B. Bonap., C. G. Av. p.* 465.

*a.* ♂. Japan. Presented by J. Gould, Esq.

734. *EMBERIZA HORTULANA*, *Linn.*

Emberiza hortulana, *Linn., S. N.* I. *p.* 309. *Lath.*, V. *p.* 295. *Gould, Birds of Eur. t.* 176. *G. R. Gray, Gen. of Birds*, II. *p.* 377; *Cat. Brit. B. Brit. Mus. p.* 112. *Bonap., C. G. Av. p.* 465.

Citrinella hortulana, *Kaup, Nat. Syst. p.* 142.

Euspiza hortulana, *Blyth, Cat. B. Mus. A. S. Beng. p.* 129.

Glycyspina hortulana, *Cabanis, Cat. B. Mus. Heine, p.* 128.

Emberiza Buchanani, *Blyth, J. A. S. Beng.* XIII. *p.* 957 (1844) (*nec. J. A. S. Beng.* XVI. *p.* 780).

Fringilla Jamjohari *F.* (*B.*) *Hamilton, MS.* II. *p.* 103.

The Ortolan Bunting, *Yarrell.*

Jamjohara, Hind. *F.* (*B.*) *Hamilton.*

*a.* S. Europe. Presented by P. L. Sclater, Esq., July, 1854.

735. *EMBERIZA HUTTONI, Blyth Sp.*

Euspiza Huttoni, *Blyth, J. A. S. Beng.* XVIII. *p.* 811 (1849).

Emberiza Buchanani, *Blyth, J. A. S. Beng.* XVI. *p.* 780 (*nec. J. A. S. Beng.* XIII. *p.* 957, 1844).

A. B. C. ♂. Base of Kossaeh Pass, N. W. India. From Griffith's Collection.

Nearly affined to *E. hortulana,* but differing in colour, having the scapularies, forepart of wing, and margins of the coverts and tertiaries, of the same pale rufous-buff as the entire under-parts, from the breast inclusive, which is similar to that of the abdominal region only of *E. hortulana.* Head, neck, throat, and inter-scapularies, greyish without marks, but traces of striation on the lower part of the back; orbital feathers whitish; bill and feet pale.

Length 6 in., of wing 3½ in., tail 3 in., and tarsus ¾ of an inch.

"Found in flocks near shingly or stony hills."—(Griffith's MS. Notes.)

Captain Hutton states that it is "found at Candahar in the summer."

736. *EMBERIZA STEWARTI, Blyth Sp.*

Euspiza Stewarti, *Blyth, J. A. S. Benj.* XXIII. *p.* 215 (*Feb.* 1854).

Emberiza caniceps, *Gould, Birds of Asia, pt.* VI. *t.* . (*July,* 1854).

The Grey-capped Bunting, *Gould.*

A. B. ♂. ♀. Pushut. From Griffith's Collection.

C. ♂. Himalaya. From Dr. Royle's Collection.

*E. Stewarti,* Blyth.—Male: crown greyish white, lores and a broad line passing over the eye to the nape, and the throat black; cheeks and ear-coverts white; back, scapularies, rump, and upper tail-coverts deep reddish chestnut; wing-coverts dark brown, edged with buffy brown; wings brown, narrowly edged with greyish white; central tail-feathers blackish brown, the two outer on each side blackish brown at the base, and white for the remainder of their length, with the exception of the outer web, which is brown; under-surface creamy white, crossed on the chest by a broad band of lively chestnut-red; bill and feet fleshy brown. The female has the whole upper

surface, wings, and tail pale olive-brown, with a streak of dark brown down the centre of each feather; a slight tinge of rufous on the upper tail-coverts; under-surface pale buffy brown, streaked with dark brown.

Length 6 in., of wing $3\frac{1}{8}$ in., tail $2\frac{3}{4}$ in., and tarsus $\frac{7}{10}$ of an inch.

Genus Euspiza, *Bonaparte* (1832).

Hypocentor, *Cabanis, Cat. B. Mus. Heine, p.* 131 (1851).

Granativora, *Bonap.* (1853), *Comptes Rendus, p.* .

Onychospina, *Bonap.* (1853), *Comptes Rendus, p.* .

737. *EUSPIZA SIMILLIMA, Blyth.*

Euspiza simillima, *Blyth, J. A. S. Beng.* XVIII. *p.* 811 (1849); *Catal. B. Mus. A. S. Beng. p.* 128. *Bonap., C. G. Av. p.* 468.

Granativora simillima, *Bonap., Comptes Rendus* (1853), *p.* .

Emberiza melanocephala, *apud Sykes, P. Z. S.* (1832), *p.* 93. *Jerdon, Madr. Journ.* XI. *p.* 29. *Blyth, J. A. S. Beng.* XIII. *p.* 957. *Burgess, P. Z. S.* (1854), *p.* 160.

The Indian Black-headed Bunting.

A. B. ♂. Dukhun. Presented by Colonel Sykes.

Differs from *E. melanocephala* in its much smaller size; the closed wing measuring $3\frac{1}{4}$ in., instead of 4 in., and the rest in proportion.

"Common in Western India, and appears in considerable flocks at the ripening of the bread-grain (*Andropogon Sorghum*, Linn.) in December. Granivorous."—(Sykes.)

Lieut. Burgess, in his notes, remarks: "The Patel, or head-man, of the town of Jintee, near the river Bheema, in the Deccan, assured me that these birds, or some of them, remain to breed in the thick babool copses that clothe the banks of the river near that town; but I did not observe the nests or eggs. I believe that the greater part migrate much about the same time as the rose-coloured Pastor."

738. *EUSPIZA LUTEOLA, Sparmann Sp.*

Emberiza luteola, *Sparm., Mus. Carls. fasc.* IV. *t.* 93 (1789), ♀. *Lath., Hist.* IV. *p.* 333.

Euspiza luteola, *Blyth, Cat. B. Mus. A. S. Beng. p.* 128.

*Bonap., C. G. Av. p.* 469. *Cabanis, Cat. B. Mus. Heine, p.* 130.

Emberiza icterica, *Eversmann, Add. Pallas Zoogr.* II. *t.* 10. *Blyth, J. A. S. Beng.* XIII. *p.* 957. *Hutton, J. A. S. Beng.* XVI. *p.* 779.

Euspiza icterica, *G. R. Gray, Gen. of Birds,* II. *p.* 376, *t.* 91.

Emberiza brunniceps, *Brandt, Bull. de l'Acad. Imp. de Pétersburg.*

Emberiza personata, *Blyth, J. A. S. Beng.* XIV. *p.* 555 (*nec. Temm.*).

Loxia flavicans, var. A. *Lath., Hist. of B.* V. *p.* 243, ♂.

Dalchidi, Scinde, *Hutton.*

A. B. C. *d. e.* ♂. ♀. Candahar. From Griffith's Collection.

*f.* ♂. Upper India. From the Asiatic Society of Bengal.

"This bird arrives at Candahar in the beginning of April, and departs in autumn."—(Hutton.)

Griffith, in his MS. Notes, states that "the chirp of this bird is like that of the common quail."

739. *EUSPIZA VARIABILIS, Temminck Sp.*

Emberiza variabilis, *Temm. Pl. Col.* 583, *f.* 2. *G. R. Gray, Gen. of Birds,* II. *p.* 377. *Temm. et Schleg., Fauna Japon. t.* 56.

Euspiza variabilis, *Bonap., C. G. Av. p.* 469.

*a. b.* ♂. ♀. Japan. Presented by J. Gould, Esq.

740. *EUSPIZA AUREOLA, Pallas Sp.*

Emberiza aureola, *Pallas, Zoogr. Ross. As. t.* 50. *Lath., Hist. of B.* V. *p.* 327. *Gould, Birds of Eur. t.* 174.

Euspiza aureola, *G. R. Gray, Gen. of Birds,* II. *p.* 376. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nepal, p.* 108. *Bonap., C. G. Av. p.* 468. *Blyth, J. A. S. Beng.* XXIII. *p.* 732.

Hypocentor aureolus, *Cabanis, Cat. B. Mus. Heine, p.* 131.

Mirafra flavicollis, *McClelland, P. Z. S.* (1839), *p.* 163 (*the female*). *G. R. Gray, Gen. of Birds,* II. *p.* 383.

Euspiza flavogularis, *Blyth, J. A. S. Beng.* XVIII. *pp.* 86, 811 ♂ (1849); *Cat. B. Mus. A. S. Beng. p.* 129. *Bonap., C. G. Av. p.* 468, *Sp.* 5.

Passerina collaris, *Vieillot.*

The Yellow-breasted Bunting, *Latham.*

A. B. C. *d. e.* ♂. ♀. (No. 793, Hodgs. Cat.) Nepal. Presented by B. H. Hodgson, Esq.

F. G. ♀. (*M. flavicollis*, McClell.) Assam. From McClelland's Collection.

H. *i.* ♂. (*E. flavogularis*, Blyth.) Nepal. From the Asiatic Society of Bengal.

741. *EUSPIZA FUCATA, Pallas Sp.*

Emberiza fucata, *Pallas, Zoogr. Ross. As. t.* 46. *Gould, B. of Eur. t.* 178. *Blyth, J. A. S. Beng.* XI. *p.* 601; XIII. *p.* 957. *G. R. Gray, Gen. of Birds,* II. *p.* 377. *Temm. et Schleg., Fauna Japon. t.* 57. *Bonap. C. G. Av. p.* 464.

Euspiza fucata, *Blyth, Cat. B. Mus. A. S. Beng. p.* 129; *J. A. S. Beng.* XXIII. *p.* 215.

Onychospina fucata, *Bonap., Comptes Rendus* (1853) *p.* .

Emberiza lesbia, *apud Temminck.*

A. B. ♂. Bengal. From the Asiatic Society of Bengal.

C. D. ♂. (No. 965, Hodgs. Cat.) Nepal. Presented by B. H. Hodgson, Esq., 1853.

*e.* ♂. Japan? Presented by J. Gould, Esq.

"Common in the neighbourhood of Calcutta, and is frequently brought for sale in the medley of species purchased as 'Ortolans' by Europeans. Apparently an irregular and uncertain winter visitant in Lower Bengal."—(Blyth.)

Genus Ocyris, *Hodgs., Gray's Zool. Misc. p.* 84 (1844); *P. Z. S.* (1845), *p.* 35.

742. *OCYRIS OINOPUS, Hodgson.*

Ocyris oinopus, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84; *P. Z. S.* (1845), *p.* 35; *Ann. Nat. Hist.* (1845), *p.* 205.

Emberiza oinops, *Hodgs., Cat. B. of Nepal, p.* 108.

Emberiza sordida, *Hodgs., J. A. S. Beng.* XIII. *p.* 958, ♀.

Emberiza pusilla, *apud Blyth, J. A. S. Beng.* XV. *p.* 40. *Bonap. C. G. Av. p.* 464.

Euspiza pusilla, *apud Blyth, Cat. B. Mus. A. S. Beng. p.* 130.

? Emberiza pusilla, *Pallas, Zoogr. Ross. As. t.* 47, *f.* 1.

A. B. C. *d.* ♂. ♀. (*O. oinopus*, Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

*e.* Darjeeling. From Dr. Pearson's Collection.

Genus Melophus, *Swains., Classif. of Birds, p.* 290 (1837).

743. *MELOPHUS MELANICTERUS, Gmel. Sp.*

Fringilla melanictera, *Gmel. S. N.* I. *p.* 910. *Lath., Hist. of B.* VI. *p.* 67. (*Pl. Enl.* 224, *f.* 1.)

Melophus melanicterus, *Bonap., C. G. Av. p.* 470.

Emberiza cristata, *Vigors, P. Z. S.* (1831), *p.* 35. *Sykes, P. Z. S.* (1832), *p.* 93. *Blyth, J. A. S. Beng.* XI. *p.* 602.

Emberiza Lathami, *J. E. Gray, Zool. Misc.* (1832), *p.* 2. *Hodgs., Cat. B. of Nepal, p.* 107. *Blyth, J. A. S. Beng.* XIII. *p.* 957.

Euspiza Lathami, *G. R. Gray, Gen. of Birds*, II. *p.* 376. *Blyth, Cat. B. Mus. A. S. Beng. p.* 129.

Emberiza erythroptera, *Jardine et Selby, Ill. Orn. t.* 132.

Melophus erythropterus, *Swains., Classif. of Birds, p.* 290.

Emberiza subcristata, *Sykes, P. Z. S.* (1832), *p.* 92, ♀.

Emberiza nipalensis, *Hodgs., As. Res.* XIX. *p.* 157 (1836); *Gray's Zool. Misc.* (1844), *p.* 84.

Goura Finch, *Lath., Hist. of B.* VI. *p.* 68.

Goura Bunting, *J. E. Gray.*

Crested Black Bunting, *Jerdon.*

Putthur Chirta, Hind., *F.* (*B.*) *Hamilton, MS.* II. *p.* 104.

A. *b.* ♂. ♀. (*E. cristata et subcristata*, Sykes.) Dukhun. Presented by Colonel Sykes.

*c. d.* ♂. ♀. (*E. nipalensis*, Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

E. F. ♂. ♀. Kumaon. From Captain R. Strachey's Collection.

*g*. ♀. Bootan. From Pemberton's Collection.

"Rare in the Dukhun, and found only on rocky and bushy mountains. Grass-seeds only found in the stomach."—(Sykes.)

Genus Centrophanes, *Kaup, Nat. Syst. p.* 158 (1829).
Leptoplectron, *Reichenbach* (1850).

744. *CENTROPHANES LAPPONICA, Linn. Sp.*

Fringilla lapponica, *Linn., S. N.* I. *p.* 317. *Gmel., S. N.* I. *p.* 900. *Lath., Hist. of B.* VI. *p.* 62.

Centrophanes lapponica, *Kaup, Naturl. Syst. p.* 158. *Blyth, Cat. B. Mus. A. S. Beng. p.* 120. *Cabanis, Cat. B. Mus. Heine, p.* 127.

Plectrophanes lapponica, *Selby, Linn. Trans.* XV. *p.* 156, *t.* 1. *Gould, Birds of Eur. t.* 169. *G. R. Gray, Gen. of Birds,* II. *p.* 379. *Cat. Brit. B. in Brit. Mus. p.* 114. *Bonap., C. G. Av. p.* 462.

The Lapland Bunting, *Yarrell.*

*a*. England. Presented by J. Gould, Esq.

Genus Plectrophanes, *Meyer* (1815).
Hortulanus, *Leach, Syst. Cat. Mam. et B. Brit. Mus. p.* 15 (1816).

745. *PLECTROPHANES NIVALIS, Linn. Sp.*

Emberiza nivalis, *Linn., S. N.* I. *p.* 308. *Lath., Hist.* V. *p.* 291.

Plectrophanes nivalis, *Meyer, Eyton, Cat. Brit. B. p.* 19. *Gould, Birds of Eur. t.* 170. *G. R. Gray, Gen. of Birds,* II. *p.* 379; *Cat. Brit. B. in Brit. Mus. p.* 113. *Blyth, Cat. B. Mus. A. S. Beng. p.* 120. *Bonap., C. G. Av. p.* 462. *Cabanis, Cat. B. Mus. Heine, p.* 127.

Hortulanus glacialis, *Leach, Syst. Cat. Brit. Mus. p.* 15.

The Snow Bunting, *Bewick.*

*a*. Iceland. Presented by J. Gould, Esq.

Subfam. V. FRINGILLINA, *Moore.*

Genus Fringilla, *Linn. S. N.* (1735).
Cœlebs, *Cuv., Anat. Comp.* (1799).
Struthus, *Boie, Isis, p.* 974 (1826).

746. *FRINGILLA MONTIFRINGILLA, Linn.*

Fringilla montifringilla, *Linn., S. N.* I. *p.* 318. *Lath., Hist.* VI. *p.* 60. *G. R. Gray, Gen. of Birds,* II. *p.* 371. *Cat. Brit. B. in Brit. Mus. p.* 102. *Blyth, Cat. B. Mus. A. S. Beng. p.* 121. *Bonap., C. G. Av. p.* 507. *Cabanis, Cat. B. Mus. Heine, p.* 153.
Struthus montifringilla, *Boie, Isis, p.* 974.

*a. b. c. d.* ♂. ♀. Afghanistan. From Griffith's Collection.

Genus Montifringilla, *Brehm., Deutsch. Vœg.* (1828).
Orospiza, *Kaup, Entw. G. Eur. Thierw.* (1829).
Chionospiza, *Kaup, id.* (1829).
Orites, *Keyserling et Blasius.* (1840).

747. *MONTIFRINGILLA NIVALIS, Brisson Sp.*

Fringilla nivalis, *Briss., Orn.* III. *p.* 162, *t.* 15, *f.* 1. *Linn., S. N.* I. *p.* 321. *G. R. Gray, Gen. of Birds,* II. *p.* 372.
Montifringilla nivalis, *Brehm., Deutsch. Vœg. p.* 269. *Bonap. et Schleg., Monog. Lox. p.* 40, *t.* 46. *Bonap., C. G. Av. p.* 538. *Cabanis, Cat. B. Mus. Heine, p.* 154.
Passer alpicola, *Pallas, Zoogr. Ross. As.* II. *p.* 20.
Fringilla saxatilis et nivalis, *Koch, Baier. Zool.* I. *p.* 216.
Plectrophanes fringilloides, *Boie.*

*a.* ♀. Candahar. From Griffith's Collection.

The above specimen was shot "near Gurdan Dewar, on the Helmund, at an elevation of 11,500 feet."—(Griffith's MS. Note.)

Genus Fringalauda, *Hodgs., As. Res.* XIX. *p.* 158 (1836).

748. *FRINGALAUDA NEMORICOLA, Hodgson.*

Fringalauda nemoricola, *Hodgs., As. Res.* XIX. *p.* 158; *Gray's Zool. Misc. p.* 84; *Cat. B. of Nepal, p.* 107.

*Bonap. et Schleg., Monog. Lox. t.* 47. *Bonap., C. G. Av. p.* 538.

Fringilla nemoricola, *G. R. Gray, Gen. of Birds*, II. *p.* 372.

Montifringilla nemoricola, *Blyth, J. A. S. Beng.* XIII. *p.* 954. *Cat. B. Mus. A. S. Beng. p.* 121.

Leucosticte nemoricola, *Blyth, J. A. S. Beng.* XXIII. *p.* 213.

Fringilla longipennis, *Bonap. in litt.* (1849).

The Forest-haunting Lark-finch, *Hodgson.*

A. B. *c.* ♂. ♀. (*F. nemoricola*, H.) Nepal. Presented by B. H. Hodgson, Esq.

*d.* ♀. Darjeeling. From Pearson's Collection.

*e. f.* ♂. ♀. Bootan. From Pemberton's Collection.

*g. h.* ♂. ♀. Kumaon. Presented by Capt. R. Strachey.

*i.* ♀. Pushut. From Griffith's Collection.

"The habits of this bird are very like those of the arboreal larks, but they never come into the open country, keeping to the skirts of the forests. Their stomach is a powerful gizzard; and their food consists of kernels and hard seeds, which they digest by means of trituration with gravel."—(Hodgson.)

Genus Procarduelis, *Hodgs., J. A. S. Beng.* XII. *p.* 985 (1843).

Pyrrha, *Cabanis, Mus. Berol.* (1850).

749. *PROCARDUELIS NIPALENSIS, Hodgson.*

Carduelis nipalensis, *Hodgs., As. Res.* XIX. *p.* 157 (1836).

Procarduelis nipalensis, *Hodgs., J. A. S. Beng.* XII. *p.* 958; *Gray's Zool. Misc.* (1844), *p.* 84. *Blyth, J. A. S. Beng.* XIII. *p.* 954; XXIII. *p.* 213; *Cat. B. Mus. A. S. Beng. p.* 121.

Fringilla nipalensis, *G. R. Gray, Gen. of Birds*, II. *p.* 371.

Linota saturata, *Blyth, J. A. S. Beng.* XI. *p.* 192 (1842), (*male*).

Pyrrha saturata, *Cabanis, Mus. Berol. Bonap. et Schleg., Monog. Lox. p.* 26, *t.* 29. *Bonap., C. G. Av. p.* 529.

Linota fusca, *Blyth, J. A. S. Beng.* XI. *p.* 193 (*female*).

The Nepal Finch, *Hodgson.*

A. B. *c. d.* ♂ ♀. (*P. nipalensis*, Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

Genus Carduelis, *Briss., Orn.* III. *pt.* 1, *p.* 53 (1760).
Acanthis, *Bechstein* (1802).

750. *CARDUELIS ELEGANS, Stephens.*

Fringilla carduelis, *Linn., S. N.* I. *p.* 318. *Lath., Hist. of B.* VI. *p.* 74. *G. R. Gray, Gen. of Birds*, II. *p.* 371; *Cat. Brit. B. in Brit Mus. p.* 102.

Carduelis elegans, *Stephens, Shaw's Zool.* XIV. *p.* 30. *Gould, Birds of Eur. t.* 196. *Blyth, Cat. B. Mus. A. S. Beng. p.* 124. *Bonap., C. G. Av. p.* 518. *Cabanis, Cat. B. Mus. Heine, p.* 159.

The Common Goldfinch, *Bewick.*

*a.* England. Presented by J. Gould, Esq.

751. *CARDUELIS CANICEPS, Vigors.*

Carduelis caniceps, *Vigors, P. Z. S.* (1831), *p.* 23. *Gould, Cent. of Birds, t.* 33, *f.* 1. *Royle, Himal. t.* 8, *f.* 2. *Blyth, J. A. S. Beng.* XII. *p.* 985; XIII. *p.* 955; XIV. *p.* 554. *Cat. B. Mus. A. S. Beng. p.* 124. *Hutton, J. A. S. Beng.* XVI. *p.* 779. *Bonap., C. G. Av. p.* 518.

Fringilla caniceps, *G. R. Gray, Gen. of Birds*, II. *p.* 371.

The Indian Goldfinch.

Shira, Hind., *Blyth.*

Saira, Cashmere, *Royle.*

A. *b. c. d.* Cabul. From Griffith's Collection.

*e. f.* Cashmere. From Dr Royle's Collection.

*g.* Drawing. From Mr. Johnson's Collection.

"Common at Quetta and Candahar in winter and summer."—(Hutton.)

Genus Chrysomitris, *Boie, Isis, p.* 322 (1828).
Spinus, *Brehm., Isis* (1828), *p.* 1277, *nec. Mœhr.* (1752).
Hypacanthis, *Cabanis, Cat. B. Mus. Heine* (1851).

752. *CHRYSOMITRIS SPINOIDES, Vigors Sp.*

Carduelis spinoïdes, *Vigors, P. Z. S.* (1831), *p.* 44.

*Gould, Cent. of Birds, t.* 33, *f.* 2. *Blyth, J. A. S. Beng.* XII. *p.* 985. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84.

Chrysomitris spinoïdes, *Blyth, J. A. S. Beng.* XIII. *p.* 956; *Cat. B. Mus. A. S. Beng. p.* 123. *Hodgs., Cat. B. of Nepal, p.* 106. *Bonap., C. G. Av. p.* 514.

Fringilla spinoïdes, *G. R. Gray, Gen. of Birds,* II. *p.* 371.

Hypacanthis spinoïdes, *Cabanis, Cat. B. Mus. Heine, p.* 161.

The Indian Siskin, *Lath., Hist. of Birds,* VI. *p.* 84.

Saira, Cashmere, *Royle.*

A. *b. c. d.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

*e. f.* Kumaon. Presented by Captain R. Strachey.

Genus Dryospiza, *Keys. et Blas., Wirbelth. Eur. p.* 41 (1840).

Spinus, *Koch, Baier. Zool.* (1816), *nec. Mœhr.* (1752).

Serinus, *Brehm., Isis* (1828), *p.* 1276.

Citrinella, *Bonap., Geogr. Comp. List of Birds, p.* 34 (1838), *nec. Kaup* (1829).

753. *DRYOSPIZA NIGRICEPS, Rüppell Sp.*

Serinus nigriceps, *Rüpp., Faun. Abyss. p.* 96, *t.* 34, *f.* 2; *Syst. Uebers. p.* 77.

Fringilla nigriceps, *G. R. Gray, Gen. of Birds,* II. *p.* 371.

Citrinella nigriceps, *Bonap., C. G. Av. p.* 520.

Crithagra nigriceps, *Blyth, J. A. S. Beng.* XXIV. *p.* 257.

A. Abyssinia. From Harris's Collection.

Genus Metoponia, *Bonap., Comptes Rendus* (1853), *p.* 917.

754. *METOPONIA PUSILLA, Pallas Sp.*

Passer pusillus, *Pallas, Zoogr. Ross. As.* II. *p.* 28.

Metoponia pusilla, *Bonap., Comptes Rendus* (1853), *p.* 917.

Serinus pusillus, *Brandt. Bonap., C. G. Av. p.* 524. *Blyth, J. A. S. Beng.* XXIV. *p.* 257.

Fringilla pusilla, *G. R. Gray, Gen. of Birds,* II. *p.* 372.

Pyrrhula pusilla, *Degland.*

Fringilla rubrifrons, *Hay, J. A. S. Beng.* XV. *p.* 38 (1846).

Emberiza aurifrons, *Blyth, J. A. S. Beng.* XVI. *p.* 476 (1847).

Serinus aurifrons, *Blyth, Cat. B. Mus. A. S. Beng. p.* 125.

*a. b. c. d.* ♂ ♀. Afghanistan. From Griffith's Collection.

According to Pallas, this "is common upon the Caucasus, and about the Caspian Sea. In summer it is found near the snow-line, descending in winter to the sub-alpine regions of Persia."

Captain T. Hutton informs us, that he had "observed this bird this winter [1854-5] in Masuri, after an interval of many years. It appeared to be always in pairs, and, like our Siskin and Goldfinch, is very fond of alighting upon the tall coarse nettles which abound here. They are merely winter birds at Masuri, and seem to have left about the middle of February."

In summer, we are informed by Lieut. Speke, of the 46th B.N.I., that "it is found in Spiti and Ladakh at an altitude of from 10,000 to 13,000 feet, more than two or three being seldom seen at a time; and, like the Goldfinch, they are not confined to a distinct locality." —(Blyth, J. A. S. Beng. XXIV. p. 257.)

"Observed in flocks about cultivations; rather shy; gregarious; feeds on thistles, on which they cling."—(Griffith's MS. Notes.)

Genus ÆGIOTHUS, *Cabanis, Cat. B. Mus. Heine, p.* 161 (1851).

ACANTHIS, *Keys. et Blas.* (1815), *nec. Bechst.* (1802).

LINACANTHIS, *Des Murs* (1853).

LINOTA, *p. Bonap., Geogr. Comp. List of Birds, p.* 34 (1838).

755. *ÆGIOTHUS LINARIUS, Linn. Sp.*

Fringilla linaria, *Linn., S. N.* I. *p.* 322. *Lath., Hist. of Birds,* VI. *p.* 97. *G. R. Gray, Gen. of Birds,* II. *p.* 372. *Cat. Brit. B. in Brit. Mus. p.* 105.

Ægiothus linarius, *Cabanis, Cat. B. Mus. Heine, p.* 161.

Acanthis linaria, *Keys. et Blas., Wirbelth. Eur. p.* 41. *Bonap. et Schleg., Monog. des Lox. p.* 48, *t.* 52. *Blyth, Cat. B. Mus. A. S. Beng. p.* 125. *Bonap., C. G. Av. p.* 541.

Linota linaria, *Bonap., Geogr. Comp. List of Birds, p.* 34. The Lesser Redpole, *Bewick.*

*a.* ♂. Europe. Presented by John Gould, Esq.

Genus Linota, *Bonap., Geogr. Comp. List of B. p.* 34 (1838). Cannabina, *Brehm., Isis* (1828), *p.* 1277.

## 756. *LINOTA BREVIROSTRIS, Gould.*

Linota brevirostris, *Gould. Bonap., Geogr. et Comp. List of Birds, p.* 34 (1838). *Moore, P. Z. S.* (1855), *p.* .

? Fringilla bella, *Hempr. et Ehrenb., Mus. Berol.*

A. ♂. Afghanistan. From Griffith's Collection.

B. ♀. Erzeroum. Presented by J. Gould, Esq.

Allied to *L. montium*, but being distinguished from that species by its lighter colour, and the male having the pink colour on the rump paler; the axillaries and the basal edge of the inner web of the primaries and secondaries pure white; the tail being margined on the whole outer, and broadly on the inner web, also with pure white; the primaries and secondaries above are also broadly edged on the outer web with white. The female is also paler, and broadly edged as in the male with white.

Length 5 in., of wing $3\frac{7}{8}$ in., tail $2\frac{5}{8}$ in., centre feathers $\frac{1}{2}$ in. less, bill to frontal plumes $\frac{3}{10}$ in., to gape $\frac{1}{2}$ in., tarsus $\frac{6}{10}$, centre toe and claw $\frac{5}{8}$ in., and hind ditto $\frac{1}{2}$ an inch.

This is also closely allied to, but distinct from, *L. fringillirostris* of Bonaparte.

## 757. *LINOTA MONTIUM, Gmelin Sp.*

Fringilla montium, *Gmel., S. N.* I. *p.* 917. *Lath., Hist. of Birds*, VI. *p.* 100.

Linota montium, *Bonap., Geogr. Comp. List of Birds, p.* 34; *Consp. Gen. Av. p.* 540. *Bonap. et Schleg., Monog. Lox. p.* 45, *t.* 50.

Cannabina montium, *Brehm., Isis* (1828), *p.* 1277.

? Fringilla flavirostris, *Linn., S. N.* I. *p.* 322. *G. R. Gray, Gen. of Birds, p.* 372.

*a. b.* ♂ ♀. Europe. Presented by J. Gould, Esq.

Genus Petronia, *Kaup, Nat. Syst. p.* 158 (1829).

758. *PETRONIA STULTA, Gmelin Sp.*

Fringilla petronia, *Linn., S. N.* I. *p.* 322. *Lath., Hist. of Birds,* VI. *p.* 53.

Fringilla stulta, *Gmel., S. N.* I. *p.* 919. *G. R. Gray, Gen. of Birds,* II. *p.* 372.

Petronia stulta, *Strickland. Blyth, J. A. S. Beng.* XVI. *p.* 880; *Cat. B. Mus. A. S. Beng. p.* 120. *Bonap., C. G. Av. p.* 513. *Cabanis, Cat. B. Mus. Heine, p.* 157.

Pyrgita petronia, *Keys. et Blas., Wirbelth. Eur. Vœg. p. . Gould, Birds of Eur. t.* 186.

Gymnoris petronius, *Hutton, J. A. S. Beng.* XVI. *p.* 779.

Petronia rupestris, *Bonap., Geogr. Comp. List of Birds, p.* 30 (1838).

*a. b.* ♂. Europe. Presented by P. L. Sclater, Esq.

"Very common at Erzeroum in the spring and summer months, in steep and stony ravines."—(Messrs. Dickson and Ross, P. Z. S. (1839), p. 121.)

"Arrives at Candahar in the latter end of April, and departs in autumn; it is far from common, though probably among the gardens on the Helmund they were more plentiful. It frequents trees."—(Hutton.)

Genus Gymnoris, *Hodgs., Gray's Zool. Misc. p.* 84 (1844); *J. A. S. Beng.* XIII. *p.* 948.

759. *GYMNORIS FLAVICOLLIS, Franklin Sp.*

Fringilla flavicollis, *Frankl., P. Z. S.* (1831), *p.* 120. *G. R. Gray, Gen. of Birds,* II. *p.* 372. *Hodgson's Cat. B. of Nep. p.* 107.

Gymnoris flavicollis, *Blyth, J. A. S. Beng.* XIII. *p.* 948. *Bonap., C. G. Av. p.* 512.

Ploceus flavicollis, *Sykes, P. Z. S.* (1832), *p.* 94.

Pyrgita flavicollis, *Jerdon, Madras Journ.* XI. *p.* 28. *Burgess, P. Z. S.* (1854), *p.* 160.

Passer flavicollis, *Strickland, J. A. S. Beng.* XIII. *p.* 948. *Blyth, J. A. S. Beng.* XVI. *p.* 118.

Petronia flavicollis, *Blyth, J. A. S. Beng.* XVI. *p.* 880; *Cat. B. Mus. A. S. Beng. p.* 120.

Fringilla jugularis, *Lichtenstein.*

Gymnoris flavirostris, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84.

Fringilla stulta, Ind. var., *Lath., Hist. of Birds,* VI. *p.* 55.

The Yellow-necked or Jungle Sparrow, *Jerdon.*

Raji, Hind., *Jerdon, vulgò.*

Jungli Charia (*i. e.* Jungle Sparrow), *Jerdon.*

Maharoi, Hills, *F.* (*B.*) *Hamilton, MSS.* II. *p.* 115.

*a.* Saharunpore. From Dr. Falconer's Collection.

B. Bengal. Presented by Rev. F. W. Hope.

*c. d.* Midnapore. From the Asiatic Society of Bengal.

E. Midnapore. Presented by Captain R. C. Tytler.

*f.* Drawing. From Heyne's Collection.

Mr. Blyth remarks, "During an excursion to the Midnapore jungles, I observed, in lieu of the common sparrow, the *Passer flavicollis,* with precisely the same note and manners: it abounded upon the trees even near buildings, but without ever resorting to the latter."—(Blyth.)

"Found all over the Peninsula, wherever there are abundance of trees; but it is not common anywhere, even in the well-wooded region of the west coast, where it is more plentiful than in any other part of the Peninsula. It frequents thin jungle, groves of trees, avenues, &c.; lives in small flocks, and has almost exactly the same chirping note as the common sparrow. It feeds on various seeds, grains, and flower-buds. It is said to breed in holes of trees. Mr. Elliott says, 'also breeds in old pots, and on house-tops.' The egg is of a greenish-white, much streaked and blotched with purple-brown."—(Jerdon.)

Genus Pyrgitopsis, *Bonap., C. G. Av. p.* 510 (1851).

760. *PYRGITOPSIS SIMPLEX, Swainson Sp.*

Pyrgita simplex, *Swainson, Birds of W. Afr. p.* 208 (*nec. Licht.*). *Gordon, Jard's Contr. to Orn.* (1849), *p.* 10.

Passer simplex, *G. R. Gray, Gen. of Birds,* II. *p.* 373. *Cabanis, Cat. B. Mus. Heine, p.* 156.

Pyrgita Swainsoni, *Rüppell, Faun. Abyss. p.* 94, *t.* 33, *f.* 2; *Syst. Uebers. p.* 78.

Passer (Pyrgitopsis) Swainsoni, *Bonap., C. G. Av. p.* 510.

Pyrgita gularis, *Lesson, Rev. Zool.* (1839), *p.* 45.
Fringilla grisea, *Lafresnaye, Rev. Zool.* (1839), *p.* 95.

A. *b.* ♂. Abyssinia. From Sir W. Harris's Collection.

"Sparrows appear to be much less impertinent on the west coast of Africa than they are proverbial for being in all other parts. They do occur in the streets, although not in any very great abundance, nor do they allow the near approach of persons. It is in the lanes, about the outskirts of the towns, that they are most frequent; and there they keep hopping on the road before whoever disturbs them, but seldom allow one's approach nearer than a distance of twenty yards."—(Dr. Gordon.)

Genus Passer, *Brisson, Orn.* III. *pt.* 1, *p.* 71 (1760).
Pyrgita, *Cuvier, Règ. An.* I. *p.* 385 (1817).

761. *PASSER INDICUS, Jardine et Selby.*

Passer indicus, *Jardine et Selby, Ill. Orn. t.* 118. *Blyth, J. A. S. Beng.* XV. *p.* 37; XVI. *p.* 470; *Cat. B. Mus. A. S. Beng. p.* 119. *Layard, Ann. Nat.* XIII. *p.* 258.

Pyrgita indica, *Hutton, J. A. S. Beng.* XVII. *pt.* II. *p.* 693.

Passer domesticus, *apud Sykes, P. Z. S.* (1832), *p.* 94. *Jerdon, Madr. Journ.* XI. *p.* 28. *Blyth, Ann. Nat. Hist.* XII. *p.* 166; *J. A. S. Beng.* XIII. *p.* 946. *Tickell, J. A. S. Beng.* XVII. *p.* 303. *G. R. Gray, Gen. of Birds*, II. *p.* 372. *Bonap., C. G. Av. p.* 509.

Pyrgita domestica, *apud Hodgs., Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nep. p.* 107. *Burgess, P. Z. S.* (1854), *p.* 160.

The Indian House-sparrow.

Gowrya, Hind., *Blyth. Tickell.*

Chaira or Chata, Bengal, *Blyth.*

Geh Cooroola (*lit.* House-bird), Ceylon, *Layard.*

*a. b.* ♂ ♀. Shikarpore. From Griffith's Collection.
*c. d.* ♂ ♀. Kumaon. Presented by Capt. R. Strachey.
*e. f.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.
*g. h.* ♂ ♀. Bootan. From Pemberton's Collection.
I. K. ♂ ♀. Dukhun. Presented by Colonel Sykes.

"The Indian House-sparrow is generally distributed over the country, even in the hottest districts."—(Blyth.)

"Nest very large, about 8 inches in diameter, of irregular shape; made of any material at hand, generally straw outside, with fine grass and feathers within, with bits of cloth, cotton, paper, &c.; in out-houses, under thatched eaves, holes in walls, down wells, and (rarely) holes in trees. Eggs 5 to 8 or 9, $\frac{2}{3}\frac{5}{2} \times \frac{5}{8}$, ordinary, pale ash, thickly sprinkled with dirty rusty brown; breeds in March, June, and October."—(Tickell.)

"The natives of Ceylon are much attached to this bird, and to attract it to their dwellings, hang on a peg in the verandah a chatty with a hole broken in the bottom. This is soon selected by a pair of sparrows for their nesting-place, and I have reason to know that the same pair will return to the spot year after year, and rear their callow nestlings, undisturbed by the presence of the inmates of the dwelling. Its note is similar to the European bird, and its eggs run through as many varieties, from almost spotless white to the darkest mottled brown."—(Layard.)

762. *PASSER CINNAMOMEUS, Gould Sp.*

Pyrgita cinnamomea, *Gould, P. Z. S.* (1835), *p.* 185.

Passer cinnamomeus, *Blyth, J. A. S. Beng.* XI. *p.* 108; XIII. *p.* 947; *Cat. B. Mus. A. S. Beng. p.* 119. *G. R. Gray, Gen. of Birds,* II. *p.* 373. *Bonap., C. G. Av. p.* 508.

*a. b.* ♂. Olipore. From Griffith's Collection.

*c. d.* ♂ ♀. (No. 951, Hodgs. Cat.) Nepal. Presented by B. H. Hodgson, Esq., 1853.

*e.* ♂. Kumaon. Presented by Captain R. Strachey.

F. G. ♂ ♀. Bootan. From Pemberton's Collection.

763. *PASSER MONTANUS, Linn. Sp.*

Fringilla montana, *Linn., S. N.* I. *p.* 324. *Lath., Hist. of Birds,* VI. *p.* 51.

Passer montanus, *Stephens, Shaw's Zool.* XIV. *p.* 40. *G. R. Gray, Gen. of Birds,* II. *p.* 372. *Blyth, J. A. S. Beng.* XIII. *p.* 947; XIV. *p.* 553; *Cat. B. Mus. A. S. Beng. p.* 120. *Bonap., C. G. Av. p.* 508. *Cabanis, Cat. B. Mus. Heine, p.* 156.

Pyrgita montana, *Gould, Birds of Eur. t.* 184, *f.* 2. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nepal, p.* 107.

The Mountain Sparrow, *Bewick.*

A. *b.* ♂ ♀. Candahar. From Griffith's Collection.

*c.* Nepal. Presented by B. H. Hodgson, Esq.

*d.* China. Presented by John Reeves, Esq.

*e. f.* Singapore. Presented by Dr. Cantor, 1854.

"This is the common sparrow of Java, and is the more common species in Arracan generally; about sixty of this species occurring to one of *P. indicus.* It is also common in China and Japan, also in the Himalaya, and in Afghanistan, extending westward to the British islands."—(Blyth.)

"Observed at Erzeroum from the 20th of September to the 18th of November, in companies."—(Messrs. Dickson and Ross, P. Z. S. (1839), p. 121.)

764. *PASSER SALICICOLA, Vieillot Sp.*

Fringilla salicicola, *Vieillot.*

Passer salicicola, *Bonap., C. G. Av. p.* 509. *Cabanis, Cat. B. Mus. Heine, p.* 155. *Blyth, J. A. S. Beng.* XXIV. *p.* 256.

Fringilla salicaria, *Vieillot.*

Passer salicarius, *Keys. et Blas., Wirbelth. No.* 104. *G. R. Gray, Gen. of Birds,* II. *p.* 372. *Blyth, Cat. B. Mus. A. S. Beng. p.* 119.

Fringilla hispaniolensis, *Temm., Man. d'Orn. p.* 353 (1820). *Lath., Hist. of B.* VI. *p.* 50.

Pyrgita hispaniolensis, *Gould, Birds of Eur. t.* 185. *Hutton, J. A. S. Beng.* XVI. *p.* 779.

A. *b. c. d.* ♂ ♀. Shikarpore. From Griffith's Collection.

*e.* ♂. Europe. Presented by J. Gould, Esq.

"Found all the year through at Candahar, and builds both in houses and trees."—(Captain Hutton.)

"This sparrow abounds in Kohát, and is there known as the 'Kabul Sparrow.'"—(Lieut. Alex. J. Trotter.)

Genus Poliospiza, *Schiff.* (1850).

Tephrospiza, *Reichenbach* (1850).

765. *POLIOSPIZA TRISTRIATA, Rüppell Sp.*

Serinus tristriata, *Rüppell, Faun. Abyss. t.* 35, *f.* 2; *Syst. Uebers. p.* 77.

Poliospiza tristriata, *Bonap., C. G. Av. p.* 519.

Fringilla tristriata, *G. R. Gray, Gen. of Birds,* II. *p.* 371.

Passer tristriata, *Blyth, J. A. S. Beng.* XXIV. *p.* 257.

A. Abyssinia. From Harris's Collection.

Genus Estrelda, *Swainson, Classif. of B. p.* 280 (1837).

Habropyga, *Cabanis* (1847).

Astrilda, *Reichenbach* (1850).

Sporæginthus, *Cabanis, Cat. B. Mus. Heine, p.* 170 (1851).

Loxigilla, *p. Lesson.*

766. *ESTRELDA AMANDAVA, Linn. Sp.*

Fringilla amandava, *Linn., S. N.* I. *p.* 319. *Lath., Hist. of B.* VI. *p.* 104. *F.* (*B.*) *Hamilton, MS.* II. *p.* 101.

Estrelda amandava, *Jerdon, Madr. Journ.* XI. *p.* 26. *Blyth, J. A. S. Beng.* XIII. *p.* 949; XVI. *p.* 470; *Cat. B. Mus. A. S. Beng. p.* 118. *G. R. Gray, Gen. of Birds,* II. *p.* 370. *Bonap., C. G. Av. p.* 459.

Linaria amandava, *Sykes, P. Z. S.* (1832), *p.* 95.

Sporæginthus amandava, *Cabanis, Cat. B. Mus. Heine, p.* 170.

Amadina punctata, *Blyth, Ann. Nat. Hist.* XII. *p.* 166.

Amaduvade Finch, *Edw., Birds, t.* 355, *f.* 1.

Lal, or Lal Munia, Hind., *F.* (*B.*) *Hamilton. Jerdon.*

Lal ♂, Munia ♀, Hind., *Hutton.*

A. B. ♂ ♀. Dukhun. Presented by Colonel Sykes.

*b.* ♂. Bengal. Presented by Dr. Falconer.

*c.* ♀. Nepal. (No. 914, Hodgs. Cat.) Presented by B. H. Hodgson, Esq., September, 1853.

*d. e.* Scinde. Presented by Dr. Henry Gould.

"This pretty bird is far from being common in the South of India. I have observed it in great abundance on the top of the Neilgherries, where it frequents meadows and bushy ground, but frequently also

enters gardens, and is considered destructive to various seeds, buds, &c. I observed it in the Deccan, in the neighbourhood of well-wooded towns. It is said to be common in some parts of Mysore. Mr. Elliott says, it is common in Dharwar, particularly in the sugarcane-fields, along with *M. Malacca*. I am informed that it builds its nest of well-woven grass, attaching it to a stalk of *Rawala*. It is caught in great quantities in certain parts, and kept in cages with *M. undulata* and others. It is said to fight with great courage (for which purpose it is kept by the natives), and that it will continue the combat till blood is drawn on one or both sides." —(Jerdon.)

Mr. Blyth says that "it occurs in enormous flocks in many parts of India."

"Inhabits long reeds on the banks of rivers. In spring, and the rainy season, it goes in large flocks; in October, they pair and begin to build."—(F. Buchanan Hamilton.)

"The Amaduvat moults twice in the year, and assumes the colouring of the female after the breeding season."—(Blyth.)

767. *ESTRELDA PUNICEA, Horsfield Sp.*

Fringilla punicea, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 160. *Lath., Hist. of Birds,* V. *p.* 244.

Estrelda punicea, *Bonap., C. G. Av. p.* 459.

The Java Amaduvade.

Menyiring, Java, *Horsfield.*

A. B. C. ♂ ♀. Java. From Dr. Horsfield's Collection.

Genus Erythrura, *Swains., Classif. of Birds, p.* 280 (1837).

Erythrina, *Blyth, Cat. B. Mus. A. S. Beng. p.* 118 (1849).

Lonchura, *part Sykes.*

768. *ERYTHRURA PRASINA, Sparrman Sp.*

Fringilla prasina, *Sparrm., Mus. Carls. t.* 72, 73 (1788). *Horsf., Trans. Linn. Soc.* XIII. *p.* 161. (*Vieill., Ois. Chant. t.* 20.)

Erythrura prasina, *Bonap., Consp. Gen. Av. p.* 457.

Loxia prasina, *Raffles, Trans. Linn. Soc.* XIII. *p.* 314.

Amadina prasina, *G. R. Gray, Gen. of Birds,* II. *p.* 370.

Erythrina prasina, *Blyth, Cat. B. Mus. A. S. Beng. p.* 118.

Emberiza quadricolor, *Gmel., S. N.* I. *p.* 886. *Lath., Hist. of Birds*, V. *p.* 329.

Lonchura quadricolor, *Sykes, P. Z. S.* (1832), *p.* 95.

Fringilla sphenura, *Temm., Pl. Col.* 96, *f.* 1, 2, 3 (182–).

Erythrura viridis, *Swains., Class. of Birds, p.* 280 (1837).

Binglis, Java, *Horsfield.*

Rannas, Malays of Sumatra, *Raffles.*

A. *b.* and Drawing. Java. From Dr. Horsfield's Collection.

*c. d. e.* Drawings. Sumatra. From Sir T. S. Raffles's Collection.

"Not uncommon in Sumatra, and may frequently be seen in the rice-fields: they are very destructive to the grain."—(Raffles.)

Genus Padda, *Reichenbach* (1850).

Oryzornis, *Cabanis, Cat. B. Mus. Heine, p.* 174 (1851).

Oryzivora, *Blyth, Indian Ornith. MS.* (1855).

769. *PADDA ORIZIVORA, Linn. Sp.*

Loxia oryzivora, *Linn., S. N.* I. *p.* 302. *Raffles, Trans. Linn. Soc.* XIII. *p.* 314. (*Vieill., Ois. Chant. t.* 61.)

Padda orizivora, *Reichenbach.*

Fringilla orizivora, *Horsf., Trans. Linn. Soc.* XIII. *p.* 161. *Lath., Hist. of Birds*, V. *p.* 251. *Swains., Zool. Ill. first ser. t.* 156.

Amadina orizivora, *G. R. Gray, Gen. of Birds*, II. *p.* 369. *Blyth, J. A. S. Beng.* XV. *p.* 285; *Cat. B. Mus. A. S. Beng. p.* 118.

Munia orizivora, *Bonap., Consp. Gen. Av. p.* 451.

Oryzornis orizivora, *Cabanis, Cat. B. Mus. Heine, p.* 174.

Loxia javensis, *Sparrman, Mus. Carls. t.* 89 (1789).

Oryzivora leucotis, *Blyth, Indian Orn. MS.* (1855).

Paddy or Rice Bird, *Edw., Birds, t.* 41, 42.

Java Grosbeak, *Latham.*

Java Sparrow, *Raffles.*

Glate, Java, *Horsfield.*

Gelatik, Sumatra, *Raffles.*

Ram Gira of the Bengalees, *Blyth.*

A. and Drawing. Java. From Dr. Horsfield's Collection.

*b.* Malacca. Presented by Dr. Cantor (1854).

Genus MUNIA, *Hodgson, As. Res.* XIX. *p.* 153 (1836).

DERMOPHRYS, *Hodgson, J. A. S. Beng.* X. *p.* 28 (1841).

MAJA, *Reichenbach* (1850).

LONCHURA, *Sykes, P. Z. S.* (1832), *p.* 95.

UROLONCHA, *Cabanis, Cat. B. Mus. Heine, p.* 173 (1851).

OXYCERCA, *G. R. Gray, List of Gen. of Birds, App. p.* 10 (1842).

770. *MUNIA MAJA, Linn. Sp.*

Loxia maja, *Linn., S. N.* I. *p.* 301. *Lath., Hist. of Birds,* V. *p.* 264. (*Vieill., Ois. Chant. t.* 56.)

Munia maja, *Blyth, Cat. B. Mus. A. S. Beng. p.* 116. *Bonap., Consp. Gen. Av. p.* 451.

Fringilla maja, *Horsf., Trans. Linn. Soc.* XIII. *p.* 162.

Amadina maja, *G. R. Gray, Gen. of Birds,* II. *p.* 370. *Blyth, J. A. S. Beng.* XIII. *p.* 949; XV. *pp.* 36, 285.

Dermophrys maja, *Cabanis, Cat. B. Mus. Heine, p.* 174.

Maia sinensis, *Briss., Orn.* III. *p.* 212, *t.* 9, *f.* 2.

Loxia leucocephala, *Raffles, Trans. Linn. Soc.* XIII. *p.* 314.

Malacca Grosbeak, *Edw., Birds, t.* 306, *f.* 1.

The White-headed Grosbeak, *Latham.*

BONDOL, Java, *Horsfield.*

PIPIT, Sumatra, *Raffles.*

PETAP WHOBUN, Malay, *Blyth.*

A. and Drawing. Java. From Dr. Horsfield's Collection.

*b. c. d.* Pinang. Presented by Dr. Cantor (1854).

771. *MUNIA PUNCTULARIA, Linn. Sp.*

Loxia punctularia, *Linn., S. N.* I. *p.* 302. *Lath., Hist. of Birds,* V. *p.* 247.

Munia punctularia, *Blyth, Cat. B. Mus. A. S. Beng. p.* 117. *Bonap., C. G. Av. p.* 452.

Fringilla punctularia, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 161.

Amadina punctularia, *Hay, J. A. S. Beng.* XIV. *p.* 554. *Blyth, J. A. S. Beng.* XV. *p.* 285. *G. R. Gray, Gen. of Birds,* II. *p.* 370.

Uroloncha punctularia, *Cabanis, Cat. B. Mus. Heine, p.* 174 (1851).

Fringilla nisoria, *Temm., Pl. Col.* 500, *f.* 2.

Oxycerca nisoria, *G. R. Gray, List of Birds, App. p.* 10.

Coccothraustes javensis nævia, *Briss., Orn.* III. *p.* 239, *t.* 39, *f.* 2.

Cowry Grosbeak, *Latham.*

Pekking, Java, *Horsfield.*

A. *b. c.* and Drawing. Java. From Dr. Horsfield's Collection.

*d.* Pinang. Presented by Dr. Cantor (1854).

Distinguished from *M. undulata* by the whitish grey on the rump, upper tail-coverts, and tail, which is represented by glistening fulvous in *M. undulata.*

772. *MUNIA UNDULATA, Latham Sp.*

Loxia undulata, *Lath., Ind. Orn.* I. *p.* 387; *Gen. Hist. of Birds,* V. *p.* 248.

Munia undulata, *Blyth, Cat. B. Mus. A. S. Beng. p.* 387.

Amadina undulata, *Blyth, J. A. S. Beng.* XV. *p.* 37. *G. R. Gray, Gen. of Birds,* II. *p.* 370.

Munia lineoventer, *Hodgson, As. Res.* XIX. *p.* 154 (1836); *Gray's Zool. Misc.* (1844), *p.* 84.

Munia punctularia, *apud Hodgson's Cat. B. of Nepal, p.* 106.

Amadina punctularia, *apud Pearson, J. A. S. Beng.* X. *p.* 647. *Blyth, J. A. S. Beng.* XIII. *p.* 949. *Strickland, Ann. Nat. Hist.* XIII. *p.* 38.

Lonchura nisoria, *apud Sykes, P. Z. S.* (1832), *p.* 94.

Spermestes nisoria, *apud Jerd., Madr. Journ.* XI. *p.* 26.

Loxia punctularia, var. A., *Lath., Hist.* V. *p.* 247.

Cowry Grosbeak, *Edw., Birds, t.* 40.

Tela Munia, Hind., *Blyth.*

Simbaz, Masuri, *Hutton.*

Sing-baz, or Sheen-baz, Hind., *Jerdon.*

Shubz Munia, Bengal, *Blyth.*

A. Dukhun. Presented by Colonel Sykes.

B. Madras. From Dr. Wight's Collection.

*c.* Assam. From McClelland's Collection.

*d. e.* (*M. lineoventer*, Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

*f. g.* Drawings. From Heyne's Collection.

Mr. Jerdon remarks, "I obtained this pretty species on the Neilgherries, frequenting long grass and bushes, and feeding on various seeds, in small parties of four or five. It is met with occasionally in various parts of the country, as in Mysore, and some of the more wooded spots, near large towns in the table-land."

"Flies in large flocks, and is to be met with in most parts of Bengal."—(Pearson.)

"Sexes alike."—(Hodgson.)

773. *MUNIA MALACCA*, *Linn. Sp.*

Loxia malacca, *Linn.*, *S. N.* I. *p.* 302. *Raffles*, *Trans. Linn. Soc.* XIII. *p.* 313. *Lath.*, *Hist.* V. *p.* 244. (*Vieill.*, *Ois. Chant. t.* 52.)

Munia malacca, *Blyth*, *Cat. B. Mus. A. S. Beng. p.* 116. *Bonap.*, *C. G. Av. p.* 432.

Spermestes malacca, *Jerdon*, *Madr. Journ.* XI. *p.* 27.

Amadina malacca, *Blyth*, *J. A. S. Beng.* XV. *p.* 285. *G. R. Gray*, *Gen. of Birds*, II. *p.* 370.

Dermophrys malacca, *Cabanis*, *Cat. B. Mus. Heine*, *p.* 174.

Coccothraustes javensis, *Briss.*, *Orn.* III. *p.* 237.

Amadina sinensis, *apud Blyth*, *J. A. S. Beng.* XV. *pp.* 36, 285.

White-breasted Indian Sparrow, *Edw.*, *Birds*, *t.* 355, *f.* 2.

Malacca Grosbeak, *Lath.*, *Hist. of Birds*, V. *p.* 244.

Black-headed Finch, *Jerdon*.

Nukl-nore, Hind., *Jerdon*.

*a.* S. India. Donor unknown.

"I observed this bird in the Carnatic, frequenting long reeds and grass, by the side of rivers, and in the table-land in similar situations, though more rare, and most numerous in the wooded region of the west coast, frequenting grain-fields in large flocks, along with the White-rumped Finch (*M. striata*, Linn.)."—(Jerdon.)

774. *MUNIA RUBRONIGER*, *Hodgson.*

Munia rubroniger, *Hodgs.*, *As. Res.* XIX. *p.* 153 (1836). *Blyth*, *J. A. S. Beng.* XXII. *p.* 412; *Cat. B. Mus. A. S. Beng. p.* 116.

Lonchura melanocephala, *McClelland, P. Z. S.* (1839), *p.* 163.

Spermestes melanocephalus, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84. *Blyth, Ann. Nat. Hist.* XII. *p.* 166.

Munia malacca, *apud G. R. Gray, Gen. of Birds,* II. *p.* 370. *Hodgs., Cat. B. of Nep. p.* 106. *Bonap., C. G. Av. p.* 432.

Loxia indica, *Lath., Ind. Orn.* I. *p.* 394; *Gen. Hist.* V. *p.* 253 (*young*) ?

Pora Munia, Nukroul, Masuri, *Blyth.*

*a. b. c. d.* (*M. rubroniger*, Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

*e.* (*L. melanocephala*, McClell.) Assam. From Dr. McClelland's Collection.

Mr. Hodgson states, in his description of this bird, that "the sexes are exactly alike: young, brown above, and pale dirty rufous below; and the bill and legs larger and duller."

775. *MUNIA SINENSIS, Brisson Sp.*

Coccothraustes sinensis, *Briss., Orn.* III. *p.* 238.

Munia sinensis, *Blyth, Cat. B. Mus. A. S. Beng. App. p.* 337.

Amadina sinensis, *G. R. Gray, Gen. of Birds,* II. *p.* 370.

Loxia atricapilla, *Vieill., Ois. Chant. t.* 53.

Loxia malacca, var. B., *Linn., S. N.* I. *p.* 302.

Munia malacca, *apud Bonap., C. G. Av. p.* 432.

Chinese Sparrow, *Edw., Birds, t.* 43.

Malacca Grosbeak, var. A., *Lath., Hist. of Birds,* V. *p.* 244.

*a.* Drawing. Sumatra. From Sir T. S. Raffles's Collection.

*b.* Pinang. Presented by Dr. Cantor (1854).

776. *MUNIA MALABARICA, Linn. Sp.*

Loxia malabarica, *Linn., S. N.* I. *p.* 305. *Lath., Hist.* V. *p.* 253. *F. Buch. Hamilton, MS.* I. *p.* 79.

Munia malabarica, *Blyth, Cat. B. Mus. A. S. Beng. p.* 117. *Bonap., C. G. Av. p.* 453. *Theobald, J. A. S. Beng.* XXIII. *p.* 600.

Amadina malabarica, *Jardine et Selby, Ill. Orn. t.* 34. *Blyth, J. A. S. Beng.* XIII. *p.* 949; XV. *p.* 37. *G. R. Gray, Gen. of Birds,* II. *p.* 370.

Loxia bicolor, *Tickell, J. A. S. Beng.* II. *p.* 578 (1833), (*nec. Latham*).

Lonchura Cheet, *Sykes, P. Z. S.* (1832), *p.* 95; (1834), *p.* 148. *McClelland, P. Z. S.* (1839), *p.* 163.

Spermestes Cheet, *Jerdon, Madr. Journ.* XI. *p.* 27. *Burgess, P. Z. S.* (1854), *p.* 160.

Malabar Grosbeak, *Latham.*

Chorga, Hind., *Blyth.*

Sar Munia, Bengal, *Blyth.*

Churchura, Plains, *Royle.*

Piduri, Bengal, *F.* (*Buch.*) *Hamilton.*

A. B. Dukhun. Presented by Colonel Sykes.

C. D. Bengal. From the Asiatic Society of Bengal.

*f.* Scinde. Presented by Dr. Henry Gould.

*g.* Drawing. From Dr. F. (B.) Hamilton's Collection.

"These birds live in small families; I have frequently found them in possession of the deserted nests of the common Weaver-bird; but their own nest is a hollow ball, made of a delicate Agrostis, with a lateral hole for the entrance of the birds. I took a nest in the fork of a branch of the *Mimosa arabica;* it contained ten oblong minute white eggs, $\frac{13}{20}$ in. long by $\frac{9}{20}$ in. in diameter. The cry of the bird is *cheet, cheet, cheet,* uttered simultaneously by flocks in flight."—(Colonel Sykes.)

"Inhabits India generally, Ceylon, and is common in Bengal."—(Blyth.)

"This little Finch is found all over the Peninsula, frequenting hedges, low trees in cultivated ground, and low bushes on the open plains, or by a river-side. It frequently enters gardens, and feeds on various kinds of seeds."—(Jerdon.)

"About Calcutta, this bird is frequently tamed; and a pair always being kept in the same cage, each bird has a small cord fastened round its body, and the owner holding one bird by the cord, throws up the other in the air, which always returns and sits by its companion."—(F. Buchanan Hamilton.)

"These birds are often to be seen on the ground, picking up grass-seeds, and so close together that several may be killed at a

shot: they do not take long flights, but merely from bush to bush. I observed numbers of them in the leafless caper, on the banks of the river Bheema. It breeds, I conclude, twice in the year, as I have found its nest in the months of November and March. The nest, in two instances, was formed of the flower-stems of the silk-grass, which is abundant in the beds of streams, and lined with feathers and the silky seeds of the grass. The largest number of eggs I have found was six."—(Lieutenant Burgess.)

"Two pairs of this bird are frequently, if not usually, employed in the construction of one nest, and in which the two hens consecutively lay; so the same nest has sometimes twenty-five eggs in it, in different stages of incubation. Nest often clumsily and hastily made, but usually a neat domed structure of fine grass, with one opening, sometimes prolonged into a short deflected neck, partially closed by the elasticity of the spikes of grass forming it; sometimes the nest is a simple platform of grass, open at one end, but the grass ends curved over to meet at the top; usually placed in thorny bushes, often very conspicuous, and close to roads. It is much to be doubted if the eggs found occasionally in October and December are hatched."—(W. Theobald, Jun., Esq.)

### 777. *MUNIA LEUCOGASTROÏDES, Moore.*

Fringilla striata, *apud Horsfield, Trans. Linn. Soc.* XIII. *p.* 161.

Prit, Java, *Horsfield.*

A. *b.* Java. From Dr. Horsfield's Collection.

*M. leucogastroïdes*, Moore.—Upper parts throughout dark brown, without any trace of whitish shafts to the feathers; throat and breast brown-black; belly and flanks white; vent and thighs brown.

Size the same as *M. striata*, Linn. This differs from *M. striata* v. *leuconota*, Temm. in having the back concolorous with the rest of the upper parts, and in having no trace of whitish shafts to the feathers; and from *M. leucogastra*, Blyth, it differs in having the flanks white instead of the same colour as the throat and breast, and the tail in *M. leucogastroïdes* has no yellowish-fulvous margins.

### 778. *MUNIA ACUTICAUDA, Hodgson.*

Munia acuticauda, *Hodgs., As. Res.* XIX. *p.* 153 (1836).

Spermestes (Lonchura) acuticauda, *Hodgs., Gray's Zool. Misc. p.* 84.

Amadina acuticauda, *Blyth, J. A. S. Beng.* XIII. *p.* 949. *Strickland, P. Z. S.* (1846), *p.* 103.

Munia leuconota, *apud Hodgs., Cat. B. of Nepal, p.* 106.

Munia molucca, *apud Blyth, Cat B. Mus. A. S. Beng. p.* 117. *Bonap., C. G. Av. p.* 453.

Amadina molucca, *apud Blyth, J. A. S. Beng.* XIV. *p.* 554; XV. *pp.* 36, 285. *G. R. Gray, Gen. of Birds,* II. *p.* 370.

Uroloncha molucca, *apud Cabanis, Cat. B. Mus. Heine, p.* 173.

? Loxia molucca, *Linn., S. N.* I. *p.* 302. *Lath., Hist. of Birds,* V. *p.* 246.

? Loxia variegata, *Vieill., Ois. Chant. t.* 51.

? Molucca Grosbeak, *Latham.*

Sharp-tailed Munia, *Hodgson.*

Petap Penang, Malay, *Blyth.*

*a. b. c. d.* adult et jun. (*M. acuticauda,* Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

*e.* Assam. From McClelland's Collection.

*f.* Tenasserim. From Helfer's Collection.

*g. h.* Malacca and Pinang. Presented by Dr. Cantor (1854).

"Common near Mergui, in Tenasserim, in large flocks. Always on the ground."—(Helfer's MS. Notes.)

Mr. Hodgson states that "the sexes of this bird are alike."

779. *MUNIA STRIATA, Linn. Sp.*

Loxia striata, *Linn., S. N.* I. *p.* 306. *Lath., Hist. of Birds,* V. *p.* 246.

Munia striata, *Blyth, Cat. B. Mus. A. S. Beng. p.* 117. *Bonap., C. G. Av. p.* 453.

Amadina striata, *Blyth, J. A. S. Beng.* XIII. *p.* 949; XV. *p.* 37. *G. R. Gray, Gen. of Birds,* II. *p.* 370.

Uroloncha striata, *Cabanis, Cat. B. Mus. Heine, p.* 173.

Fringilla leuconota, *Temm., Pl. Col.* 500, *f.* 1.

Lonchura leuconota, *Sykes, P. Z. S.* (1832), *p.* 95.

Spermestes leuconota, *Jerdon, Madras Journ.* XI. *p.* 27.

Striated Grosbeak, *Latham*.
Shakari Munia, Bengal, *Blyth*.
Tau-tsa (*i. e.* Forest Sparrow), Arracan, *Blyth*.

A. *b*. Dukhun. Presented by Colonel Sykes.
*c*. S. India. From the Asiatic Society of Bengal.

"I observed this species in the Malabar coast and the Wynaad, frequenting grain-fields, open spaces in the jungle, and occasionally on the road-sides, and even in stable-yards, feeeding on the various kinds of grain and seeds. It lives in small communities of six or eight, or more."—(Jerdon.)

Colonel Sykes states that "the sexes of this bird are alike."

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In the *Asiatic Researches*, Mr. Hodgson remarks, "*Munia*, the name we have assigned to these birds, is well known to the Tarai and to the Hills as the generic appellation of several species of tiny grossbills, distinguished for their familiarity with man, their gregarious habits, their depredations upon the rice-crops, and their ingenious nests.

"The species (*M. rubroniger*, *acuticauda*, and *lineoventer*) are solitary in regard to nidification; but, after the breeding season, they are all gregarious in a greater or less degree. They are exclusively graminivorous, feeding on hard grass-seeds or cerealia, according as one or the other are procurable; and they fix their large globular nests either among the spiny leaves of the palm-trees, or the thick interlaced branches of the lesser bamboos. But there is no weaving or sewing employed in the structure of the nest; it is merely a large ball, laid against or upon naturally-blended branches, or stiff leaves, and having a small round entrance either on the side or at top. The eggs are many, and in *M. rubroniger* are of a bluish-white colour. These birds are easily tamed and caged, but they have no song.

"The whole species are migratory, appearing in June and departing in November. Many of them breed in my grounds, and are solitary, so far as I have observed. The nest is composed of grass-fibres, or leaves of the *Pinus longifolia*, and is usually constructed in the midst of the small Chinese bamboo or of the dog-rose. The male and female labour at the work with equal assiduity, and share equally the task of rearing the young. In winter and spring, they resort to the lower region, returning to us to breed just as the rains

set in, and departing with their young so soon as the rice-crop has been got in; after which, the open cultivated country is perfectly bare for some months."

Genus Hypochera, *Bonap., C. G. Av. p.* 450 (1850).

780. *HYPOCHERA ULTRAMARINA, Gmelin Sp.*

Fringilla ultramarina, *Gmel., S. N.* I. *p.* 927. *Lath., Hist. of Birds,* VI. *p.* 93. (*Edw., Birds, t.* 362, *f.* 1. *Vieill., Ois. Chant. t.* 21.)

Hypochera ultramarina, *Bonap., C. G. Av. p.* 450. *Cabanis, Cat. B. Mus. Heine, p.* 175.

Loxigilla melas, *Verreaux.*

A. ♂. Abyssinia. From Harris's Collection.

Genus Steganura, *Reichenbach* (1850).

781. *STEGANURA SPHENURA, Verreaux Sp.*

Vidua sphenura, *Verreaux, Mus. Paris.*

Steganura sphenura, *Bonap., C. G. Av. p.* 449. *Cabanis, Cat. B. Mus. Heine, p.* 176.

Steganura Verreauxi, *Bonaparte.*

Vidua paradisea, *apud Rüppell, Syst. Uebers. p.* 77.

A. Abyssinia. From Harris's Collection.

Genus Ploceus, *Cuvier, Règ. An.* 1*st ed. p.* 406 (1817).

782. *PLOCEUS HYPOXANTHUS, Daudin Sp.*

Loxia hypoxantha, *Daudin, Orn.* II. *p.* 429. *Sparrman, Mus. Carls. t.* 71 (1788).

Ploceus hypoxanthus, *Blyth, Cat. B. Mus. A. S. Beng. p.* 114. *Bonap., C. G. Av. p.* 443. *Cabanis, Cat. B. Mus. Heine, p.* 180.

Crithagra? hypoxantha, *G. R. Gray, Gen. of Birds,* II. *p.* 385.

Fringilla philippina, *apud Horsf., Trans. Linn. Soc.* XIII. *p.* 160.

Loxia philippina, *apud Raffles, Trans. Linn. Soc.* XIII. *p.* 313.

Ploceus philippinus, *apud Strickl., J. A. S. Beng.* XIII. *p.* 945.

Manyar Kembang, Java, *Horsfield.*

Tampooa, Malays, *Raffles.*

Pintau, Sumatrans, *Raffles.*

A. B. *c.* ♂ ♀. Java. From Dr. Horsfield's Collection.

*d.* ♂. Drawing. From Sir T. S. Raffles's Collection.

*Ploceus hypoxanthus* may be at once distinguished by its rather smaller size, and having a shorter, thicker, and more triangular bill. Length of wing in adult male and female, $2\frac{1}{2}$ inches.

783. *PLOCEUS MANYAR, Horsfield Sp.*

Fringilla Manyar, *Horsf., Trans. Linn. Soc.* XIII. *p.* 160 (1820). *Lath., Hist. of Birds,* V. *p.* 233.

Ploceus Manyar, *Horsf. McClell., P. Z. S.* (1839), *p.* 163. *Strickland, in epistolâ. Blyth, J. A. S. Beng.* XIII. *p.* 945; *Cat. B. Mus. A. S. Beng. p.* 115. *G. R. Gray, Gen. of Birds,* II. *p.* 352. *Jerdon, Madr. Journ.* XIII. *pt.* 1, *p.* 134. *Layard, Ann. Nat. Hist.* 2*nd ser. p.* 257. *Tytler, Ann. Nat. Hist.* 2*nd ser. p.* 368.

Ploceus flaviceps, *Cuvier, Mus. Paris.* (*Vide Less., Tr. d'Orn.*) *Bonap., C. G. Av. p.* 443.

Euplectes flaviceps, *Swains.*, $2\frac{1}{4}$ *Cent. of Birds, p.* 310. (1838).

Ploceus striatus, *Blyth, J. A. S. Beng.* XI. *p.* 873 (1842); XII. *p.* 181, *bis; Ann. Nat. Hist.* (1843), *p.* 166.

Euplectes bengalensis, *apud Jerdon, Madras Journ.* XI. *p.* 25.

Brahminee Baya, *Jerdon.*

Manyar, Java, *Horsfield.*

Telia Baya, Bengal, *Blyth.*

A. B. *c. d.* ♂ ♀. (*P. Manyar,* Horsf.) Java. From Dr. Horsfield's Collection.

E. F. *g. h.* ♂ ♀, adult et jun. (*P. striatus,* Blyth.) Bengal. From the Asiatic Society of Bengal.

I. ♂. Assam. From McClelland's Collection.

J. *k. l. m.* ♂ ♀, jun. Futtehpore. Presented by Dr. H. Gould.

" Constructs a non-pensile nest among reeds, with an incipient

tubular entrance; as, I am informed, is also very commonly the case with the Baya, when resorting to similar localities."—(Blyth.)

784. *PLOCEUS BENGALENSIS, Linn. Sp.*

Loxia bengalensis, *Linn.*, *S. N.* I. *p.* 305. *Lath.*, *Hist. of Birds*, V. *p.* 230. (*Pl. Enl.* 393, *f.* 2. *Edw.*, *Birds*, *t.* 189.) *F.* (*B.*) *Hamilton*, *MS.* II. *pp.* 117, 118.

Ploceus bengalensis, *Blyth*, *J. A. S. Beng.* XI. *p.* 872; XIII. *p.* 945; *Ann. Nat. Hist.* XII. 1*st ser. p.* 166; *Cat. B. Mus. A. S. Beng. p.* 115. *G. R. Gray*, *Gen. of Birds*, II. *p.* 352. *Tytler*, *Ann. Nat. Hist.* 2*nd ser. p.* 368. *Bonap.*, *C. G. Av. p.* 443.

Loxia regina, *Boddaërt.*

Coccothraustes chrysocephala, *Vieillot.*

Ploceus aureus, *Lesson* (*nec. Gmelin*).

Euplectes albirostris, *Swains.*, 2¼ *Cent. of Birds*, *p.* 309 (1838).

Euplectes flavigula, *Hodgs.*, *Gray's Zool. Misc.* (1844), *p.* 84, ♂.

Sarbo Baya, Hind., *F.* (*B.*) *Hamilton. Blyth.*

Shor Baya et Kantawala, Bengal, *Blyth.*

A. ♀. Bootan. From Pemberton's Collection.

785. *PLOCEUS BAYA, Blyth.*

Ploceus Baya, *Blyth*, *J. A. S. Beng.* XIII. *p.* 945 (1844). *Jerdon*, *Madr. Journ.* XIII. *pt.* 1, *p.* 134. *Bonap.*, *C. G. Av. p.* 442. *Cabanis*, *Cat. B. Mus. Heine*, *p.* 180.

Ploceus atrigula, *Hodgs.*, *Gray's Zool. Misc. p.* 84 (1844), ♂.

Ploceus passerinus, *Hodgson*, *Id.* ♀.

Loxia philippina, *apud F.* (*B.*) *Hamilton*, *MS.* II. *p.* 116; III. *p.* 11.

Euplectes flaviceps, *apud Hodgs.*, *Cat. B. of Nep. p.* 105.

Ploceus philippinus, *apud Sykes*, *P. Z. S.* (1832), *p.* 94. *Jerdon*, *Madras Journ.* XI. *p.* 25. *Blyth*, *J. A. S. Beng.* XI. *pp.* 871, 889; *Cat. B. Mus. A. S. Beng. p.* 115. *Strickland*, *J. A. S. Beng.* XIV. *p.* 553. *Tickell*, *J. A. S. Beng.* XVII. *pt.* 1, *p.* 299.

*Bonap., C. G. Av. p.* 442. *Layard, Ann. Nat. Hist.* XIII. 2*nd ser. p.* 257. *Tytler, Ann. Nat. Hist.* 2*nd ser. p.* 368. *Burgess, P. Z. S.* (1852), *p.* 88. *Philipp, MS. p.* 100.

Fringilla bengalensis, *apud Sundevall, Phys. Sällsk. Tidskrift, p. . Ann. Nat. Hist.* (1846), *p.* 260.

Baya, Hind., *Hodgs. F.* (*B.*) *Hamilton. Jerdon. Blyth.*

Chindora et Tal Babie, *Blyth.*

Bawi, Bengal, *F.* (*B.*) *Hamilton. Sundevall.*

Tsa-bo-toung, Arracan, *Blyth.*

Tokanam Cooroovi (*i. e.* Basket-maker Bird), Mal. *Layard.*

Tatteh Cooroola, Cingalese, *Layard.*

A. B. *c. d.* ♂ ♀. Dukhun. Presented by Colonel Sykes.

*e.* ♂. S. India (ex Jerdon). Presented by J. Gould, Esq.

*f. g.* ♂ ♀. Barrackpore. Presented by Captain R. Tytler.

*h. i. j. k.* ♂ ♀. (*Pl. atrigula* et *passerina*, Hodgs.) Nepal. Presented by B. H. Hodgson, Esq.

*l.* Drawing of birds, nests, and eggs. From Dr. F. (B.) Hamilton's Collection.

? *m. n. o.* ♂ ♀. Tenasserim. From Helfer's Collection.

? *p. q. r. s.* ♂ ♀. Malacca and Pinang. Presented by Dr. Cantor (1854).

"The 'Bayas' are very common about Calcutta after April, when they begin to build their nests: before April they were not observed. The nests are skilfully suspended under the enormous leaves of the common palm-tree (*Borassus flabelliformis*). Some are of compact coarse hay, and have the appearance of a purse, being 13 to 14 inches long, and 7 broad in the lower part, growing smaller upwards to the breadth of 2 inches, and externally smooth; but they are in a great part solid, so that only the lowest extremity has a small spherical cavity of 5 inches diameter, with a pendant cylindrical at the side. The nest is built from above; so that the cavity is made the last. When it is half-made, so that the bottom is wanting, a transverse wall is made; and the structure has consequently two holes in the lower part, one for the nest, the other for the entrance: these are afterwards completed, each by themselves. The males were

supposed to be chiefly occupied in collecting materials; and this seemed the most probable. I shot down, from a half-finished nest, what I supposed to be a female. Two or three nests are often attached to the same leaf, and twenty or thirty in the same palm. In the beginning of May, I obtained the newly-hatched young from a nest, and three quite white eggs from another, although many nests were but half-built. The notes near the nests were like the warbling and call-notes of the linnet: no song was heard. In the stomach, only rice-grains were found, which they were seen to pluck while hopping about the cottages, like sparrows with us."—(Sundevall.)

"The Baya arrives in the neighbourhood of Muttra in the hot weather, and begins to build during the rains. It would seem that they preferred those trees which, from any cause, are most inaccessible. Thus, in this neighbourhood, they suspend their nests from the Babul (*Mimosa arabica*), the terrible thorns of which keep all intruders at a distance; but, however, where palm-trees abound, they always select them, as being quite inaccessible, especially at the extreme tips of the leaves, where they generally suspend their nest. The nest is generally commenced from the top, the bird forming a circle like a hoop, on which they sit and swing while working; the top of the hoop is gradually widened, so as at last to form a dome with two supports; and thus the work goes on, till the whole dome has come to the length of the bottom of the hoop: there the nest begins to be formed into two compartments; on one side of the hoop the nest itself is placed, the other side being formed into an entrance.

They form the nest of one kind of dry grass, and during its formation you may observe them walking over the outside of the nest, prying about in every direction, and here and there tightening a fibre by seizing it with their beak and moving their head to and fro. They do not seem in any great hurry to complete the nest, but are very anxious to have it the proper shape, and, I suppose, sufficiently water-tight: indeed, no form could be better devised for a bird which builds only in the rainy season. I have observed them suspend the making of the nest for a month after the first few showers till the heavy rains begin to descend. They often take the liberty to hop on to a neighbour's nest and look about it, but never rob it of materials. Sometimes the high wind shakes down the nest, if not attached sufficiently strong. One bird I observed commencing its nest from the bottom, resting it on a twig having plenty of leaves.

The Baya is very tame, and will allow you to stand under the tree whilst they are making their nests."—(Phillips's MS. Notes.)

"The assemblages of Bayas all but invariably select a fan-leaved palm, wherefrom they hang their curious and beautifully-constructed nests, preferring the immediate vicinity of human abodes; and it is rare to meet with one of the fan-leaved palms, whereon several pairs of the *Cypselus palmarum* have built their nests, also clustered with the pensile nests of the Baya."—(Blyth.)

"There are few wells overhung by a tree where their nests are not seen pendent. They live in small communities, and are very noisy in their labours: they associate very readily with the common sparrow, at the season of the falling of the grass-seeds. Fruit of the *Ficus indica* and grass-seeds were found in the stomach."—(Colonel Sykes.)

"The Weaver-bird is found all over the Peninsula, but much more abundantly in some situations than in others, being common in the more wooded districts. It associates in numerous flocks, generally builds in company, and almost always in the close proximity to water."—(Jerdon.)

Lieutenant Tickell states that "the Baya lays from six to ten eggs, of a pure white colour; shape ordinary; and size $\frac{27}{32} \times \frac{9}{16}$ in. August."*

"In Ceylon, this is pretty generally scattered throughout the island, and is migratory. It breeds in June, fabricating hanging nests; the male bird also having a nest for himself, which is similar to that used for breeding in, except that it has no gallery, and the chamber that contains the eggs in the one has no bottom in the other, so that the droppings of the bird, which always sits with its head towards the opening which replaces the gallery, fall through to the ground: here the male bird rests at night, or shelters himself by day from the sun and wind, while he sings to his assiduous partner on the eggs.

The natives all tell me that the male bird conveys fire-flies to its nest, and sticks them to the side by means of mud, for the purpose of illuminating its dwelling. I never observed this substitute for candle, but I have also never found the nest of the male bird without observing a patch of mud on each side of the perch on which the

* For further notices of the habits, &c., of the Weaver-birds, we refer the reader to the Asiatic Researches, vol. ii. p. 109; Forbes's Oriental Memoirs; and to Layard and Burgess, in the references above referred to.

bird sits. It is clearly not placed there to strengthen the structure: can it be for the purpose of sharpening its bill? and may not the husks of seeds, and perhaps the wing-cases of a stray beetle, left sticking upon it, have given rise to the idea which the natives entertain?"—(E. L. Layard.)

Mr. Blyth states that "the males of the three Indian species of Weaver-bird assume, after the breeding season, the colouring of their females, by a change of plumage, and resume their bright colours, by a partial change of plumage, at the commencement of the hot season, or during March."

Genus Pyromelana, *Bonaparte* (1831).

Euplectes, *Swainson* (1829).

Oryx, *Lesson, Tr. d'Orn.* (1831).

Orynx, *Reichenbach* (1850).

Xanthomelana, *Bonaparte, C. G. Av. p.* 447 (1850).

786. *PYROMELANA ORYX, Linn. Sp.*

Loxia Oryx, *Linn., Mant. p.* 527 (1771).

Euplectes Oryx, *Swainson, B. of W. Afr.* I. *p.* 187; *Classif. of Birds, p.* 279. *Bonap., C. G. Av. p.* 446. *Cabanis, Cat. B. Mus. Heine, p.* 177.

Ploceus Oryx, *G. R. Gray, Gen. of Birds,* II. *p.* 352.

A. ♂. Abyssinia. From Harris's Collection.

787. *PYROMELANA XANTHOMELAS, Rüppell.*

Euplectes xanthomelas, *Rüppell, Faun. Abyss. p.* 94; *Syst. Uebers. p.* 67, *t.* 28.

Euplectes (Xanthomelana) xanthomelana, *Bonap., C. G. Av. p.* 447.

Ploceus xanthomelas, *G. R. Gray, Gen. of B.* II. *p.* 352.

A. B. ♂ ♀. Abyssinia. From Harris's Collection.

Genus Hyphantornis, *G. R. Gray, Gen. of Birds,* II. *p.* 351 (1849).

Textor, *Bonaparte, C. G. Av. p.* 440 (1850), (*nec. Temm.*).

788. *HYPHANTORNIS VITELLINA, Lichtenstein Sp.*

Fringilla vitellina, *Licht., Cat. Dupl. Berl. Mus. No.* 237 (1823).

Hyphantornis vitellina, *G. R. Gray, Gen. of Birds*, II. *p.* 351.

Textor vitellina, *Bonap., C. G. Av. p.* 441.

Ploceus ruficeps, *Swains., B. of W. Afr. p.* 262 (1837).

Ploceus intermedius, *Rüpp., Syst. Uebers. p.* 71 (1845).

Hyphantornis intermedius, *G. R. Gray, Gen. of Birds*, II. *p.* 351.

A. ♂. Abyssinia. From Harris's Collection.

789. *HYPHANTORNIS GALBULA, Rüppell Sp.*

Ploceus galbula, *Rüppell, Faun. Abyss. t.* 32, *f.* 2.

Hyphantornis galbula, *G. R. Gray, Gen. of Birds*, II. *p.* 351. *Cabanis, Cat. B. Mus. Heine, p.* 181.

Textor galbula, *Bonaparte, C. G. Av. p.* 441.

A. B. ♂. Abyssinia. From Harris's Collection.

Genus Sycobius, *Vieill., Anal. etc.* (1816).

Symplectes, *Swains., Classif. of B. p.* 279 (1837).

Eupodes, *Jardine, Ill. Orn.* (1837).

790. *SYCOBIUS MELANOTIS, Lafresnaye Sp.*

Ploceus melanotis, *Lafr., Rev. Zool.* (1830), *p.* 20.

Sycobius melanotis, *Bonaparte, C. G. Av. p.* 438.

Ploceus erythrocephalus, *Rüppell, Syst. Uebers. pp.* 71, 76 (1845).

Hyphantornis erythrocephalus, *G. R. Gray, Gen. of Birds*, II. *p.* 351.

A. ♂. Abyssinia. From Harris's Collection.

Genus Ploceopasser, *Smith, S. Afr. Zool. Av.* (1846).

Leucophrys, *Swains., Classif. of Birds, p.* 287 (1837).

Philagrus, *Cabanis, Cat. B. Mus. Heine, p.* 179 (1851).

791. *PLOCEOPASSER MELANORHYNCHUS, Rüpp.*

Ploceopasser melanorhynchus, *Rüppell, Syst. Uebers. p.* 78. *Bonap., C. G. Av. p.* 444.

Philagrus melanorhynchus, *Cabanis, Cat. B. Mus. p.* 179.

A. Abyssinia. From Harris's Collection.

Genus Agrophilus, *Swainson, Classif. of B. p.* 291 (1837).

Ploceopasser, *p. Smith.*

Philagrus, *p. Cabanis.*

792. *AGROPHILUS SUPERCILIOSUS, Rüppell Sp.*

Ploceus superciliosus, *Rüppell, Zool. Atlas Av. p.* 24, *t.* 15 (1826).

Ploceopasser superciliaris, *Smith, S. Afr. Zool. Rüppell, Syst. Uebers. p.* 78. *G. R. Gray, Gen. of Birds,* II. *p.* 354. *Bonap., C. G. Av. p.* 444.

Agrophilus superciliosus, *Swains., Classif. of B. p.* 291.

Philagrus superciliosus, *Cabanis, Cat. B. Mus. Heine, p.* 179.

A. Abyssinia. From Harris's Collection.

Genus Textor, *Temm., Text. de Pl. Col. p.* 446 (182–).

Alecto, *Lesson, Tr. d'Orn.* (1831).

Bubalornis, *Smith, S. Afr. Journ.* (1836).

Dertroides, *Swains., B. of W. Afr. p.* 163 (1837).

793. *TEXTOR DINEMELLI, Horsfield.*

Textor Dinemelli, *Horsfield. Rüpp., Syst. Uebers. p.* 72, *t.* 30. *G. R. Gray, Gen. of Birds,* II. *p.* 350, *t.* 87.

Alecto Dinemelli, *Bonaparte, C. G. Av. p.* 438.

A. B. ♂. Abyssinia. From Harris's Collection.

794. *TEXTOR ERYTHRORHYNCHUS, Smith.*

Textor erythrorhynchus, *Smith, Ill. Zool. S. Afr. t.* 64. *G. R. Gray, Gen. of Birds,* II. *p.* 350.

Alecto erythrorhynchus, *Bonap., C. G. Av. p.* 438.

Bubalornis niger, *Smith* (1836).

A. Abyssinia. From Harris's Collection.

## Fam. II. STURNIDÆ, *Vigors.*

### Subfam. II. BUPHAGINA.

Genus Buphaga, *Linn., S. N.* (1766).

Buphagus, *Briss. Orn.* (1760), *nec. Mœhr.* (1752).

795. *BUPHAGA ERYTHRORHYNCHA, Stanley Sp.*

Tanagra erythrorhyncha, *Stanley, Salt's Trav. Abyss. App. p.* 59.

Buphaga erythrorhyncha, *Temm., Pl. Col.* 465. *Rüppell, Syst. Uebers. p.* 76. *G. R. Gray, Gen. of Birds,* II. *p.* 332. *Bonap., C. G. Av. p.* 423. *Cabanis, Cat. B. Mus. Heine, p.* 202. *Blyth, J. A. S. Beng.* XXIV. *p.* 301.

Buphaga abyssinica, *Ehrenberg, Symb. Phys. t.* 9.

The Abyssinian Bee-eater.

Hubio, Somáli, *Lieut. Speke.*

A. Abyssinia. From Harris's Collection.

"This bird clings to camels, and injures the wounded by picking out parasites and larvæ. Its eye is a light and brownish red. Habitat in the Somáli country, generally the plateau above the hills."—(Lieut. Speke, 46th Bengal N. I.)

### Subfam. III. EULABETINA.

Genus Eulabes, *Cuvier, Règ. An.* I. *p.* 401 (1817).

Gracula, *Linn. S. N.* (1758), *nec. Linn.* (1735).

Mainatus, *Lesson, Tr. d'Orn.* (1831).

Maina, *Hodgson, J. A. S. Beng.* V. *p.* 771 (1836).

796. *EULABES RELIGIOSA, Linn. Sp.*

Gracula religiosa, *Linn., S. N.* I. *p.* 164. (*Edwards, Birds, t.* 17, *upper fig.*) *Jerdon, Madr. Journ.* XI. *p.* 24. *Hay, Madr. Journ.* XIII. *pt.* 2, *p.* 156. *Blyth, J. A. S. Beng.* XV. *p.* 31; *Cat. B. Mus. A. S. Beng. p.* 108. *Bonap., C. G. Av. p.* 422. *Cabanis, Cat. B. Mus. Heine, p.* 207. *Layard, Ann. Nat. Hist.* XIII. *n. s. p.* 216.

Pastor musicus, *Daudin.*

Eulabes indicus, *Cuvier, Règ. Anim.*

Gracula indica, *Blyth, J. A. S. Beng.* XII. *p.* 178, *bis; Ann. Nat. Hist.* XII. *p.* 96.

Gracula minor, *Jerdon, Madr. Journ.* XIII. *pt.* 2, *p.* 134.

The Jungle Grackle.

The Jungle Mynah, *Jerdon.*

Kohnee Maina, Hind., *Jerdon. Blyth.*

Hallaleynia, Ceylon, *Layard.*

*a.* S. India, ex Jerdon. From the Asiatic Society of Bengal.

*b.* Drawing of head. From Edward Blyth, Esq.

"This species is found only in lofty jungle, as well in the east as on the west coast of the Peninsula. It is by no means common, and seems partially distributed, as you may pass through miles of forest without seeing a single specimen. It is generally found in small parties of five or six, frequenting the tops of the loftiest trees, and feeding on fruit and berries of various kinds. I never found that insects had formed any portion of its food. The song of this bird is very rich, varied, and pleasing; it has, however, several harsher notes, which are frequently heard in the jungles it frequents. It is not often seen in cages in the south of India, but it is very highly prized, both for its powers of song and speech, which are said to surpass those of all other birds in distinctness.

"It has probably been from erroneous information that this species was named 'religiosa' by Linnæus, as I am not aware of its being considered sacred by the Hindoos."—(Jerdon.)

"Common along the western coast of Ceylon, and extends sparingly into the Kandian provinces."—(E. L. Layard.)

797. *EULABES INTERMEDIA, A. Hay Sp.*

Gracula intermedia, *A. Hay, Madr. Journ.* XIII. *pt.* 2, *p.* 156. *Blyth, J. A. S. Beng.* XV. *pp.* 32, 369; *Cat. B. Mus. A. S. Beng. p.* 107. *G. R. Gray, Gen. of Birds,* III. *App. p.* 15. *Bonap., C. G. Av. p.* 422. *Cabanis, Cat. B. Mus. Heine, p.* 207.

Gracula religiosa, *apud Sundevall, Physiogr. Sälls. Tidsk.* (1837), *Ann. Nat. Hist.* XVIII. *p.* 305. *McClell., P. Z. S.* (1839), *p.* 164. *Hodgs., Gray's Zool.*

*Misc.* (1844), *p.* 84; *Cat. B. of Nepal, p.* 103. *Blyth, J. A. S. Beng.* XII. *p.* 178, *bis; Ann. Nat. Hist.* XII. *p.* 96.

Maina religiosa, *apud Hodgs., J. A. S. Beng.* V. *p.* 771.

The Common Hill Grackle.

Paharia Maina, Hind., *Blyth.*

Thale-gu, Arracan, *Phayre.*

*a.* Nepal. Presented by B. H. Hodgson, Esq.

*b.* Kumaon. Presented by Captain R. Strachey.

*c. d.* Tenasserim. From Helfer's Collection.

*e.* Drawing of head. From Edward Blyth, Esq.

Common in the hilly regions of Nepal, Bengal, and Tenasserim.

798. *EULABES JAVANENSIS, Osbeck Sp.*

Corvus javanensis, *Osbeck, It. p.* 102 (1757); *id., English Edit. p.* 157. (*Edwards, Birds, t.* 17, *lower fig.*)

Gracula javanensis, *Blyth, J. A. S. Beng.* XV. *p.* 31; *Cat. B. Mus. A. S. Beng. p.* 107. *Bonap., C. G. Av. p.* 422.

Mainatus major, *Briss., Orn.* II. *p.* 308.

Eulabes javanus, *Cuvier, Règ. Anim.*

Gracula javana, *A. Hay, Madr. Journ.* XIII. *pt.* 2, *p.* 156. *Cabanis, Cat. B. Mus. Heine, p.* 207.

Mainatus sumatranus, *Lesson, Tr. d'Orn. p.* 357.

Pastor musicus, *Wagler, Syst. Av. Past. sp.* 2.

Gracula religiosa, var. B., *Lath., Hist. of Birds,* III. *p.* 146.

Eulabes religiosa, *apud Horsf., Trans. Linn. Soc.* XIII. *p.* 162.

Gracula religiosa, *apud Raffles, Trans. Linn. Soc.* XIII. *p.* 303. *G. R. Gray, Gen. of Birds,* II. *p.* 330.

The Malayan Grackle.

Beo, or Mencho, Java, *Horsfield.*

Tiong, Sumatra, *Raffles.*

A. and Drawing. Java. From Dr. Horsfield's Collection.

B. Sumatra. From Raffles's Collection.

*c.* Malacca. From Griffith's Collection.

*d. e.* Malacca. Presented by Dr. Cantor, 1854.

*f.* Nicobars. From the Asiatic Society of Bengal.

Genus Ampeliceps, *Blyth, J. A. S. Beng.* XI. *p.* 194 (1842).
Bucolus, *Reichenbach* (1850).

799. *AMPELICEPS CORONATUS, Blyth.*

Ampeliceps coronatus, *Blyth, J. A. S. Beng.* XI. *p.* 194; XII. *p.* 985; XV. *p.* 32; *Cat. B. Mus. A. S. Beng. p.* 108. *Bonap., C. G. Av. p.* 422.

Gracula coronata, *G. R. Gray, Gen. of Birds*, II. *p.* 330, *t.* 81.

Blyth's Grackle.

A. ♂. Tenasserim (Upper). From the Asiatic Society of Bengal.

B. ♂. Tenasserim. From Helfer's Collection.

Subfam. IV. STURNINA, *Vigors.*

Genus Sturnus, *Linn. S. N.* (1735).

800. *STURNUS VULGARIS, Linn.*

Sturnus vulgaris, *Linn., S. N.* I. *p.* 290. *Lath., Hist. of Birds*, V. *p.* 1. *F.* (*B.*) *Hamilton, MS.* II. *p.* 100. *Gould, Birds of Eur. t.* 210. *Dickson and Ross, P. Z. S.* (1839), *p.* 132. *G. R. Gray, Gen. of Birds*, II. *p.* 337; *Cat. Brit. B. Brit. Mus. p.* 98. *Hodgs., Cat. B. of Nep. p.* 104. *Pearson, J. A. S. Beng.* X. *p.* 648. *Blyth, J. A. S. Beng.* XIII. *p.* 366; *Cat. B. Mus. A. S. Beng. p.* 109. *Hutton, J. A. S. Beng.* XVI. *p.* 779. *Bonap., C. G. Av. p.* 421. *Cabanis, Cat. B. Mus. Heine, p.* 202. *Theobald, J. A. S. Beng.* XXIII. *p.* 601.

Sturnus indicus, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84. *Blyth, Ann. Nat. Hist.* XII. *p.* 97.

Sturnus splendens, *Temm., Mus. Lugd. Bonap., C. G. Av. p.* 421.

The Common Starling, *Bewick.*

Telia Maina, Hind., *Blyth.*

Saruk, Cabul, *Blyth.*

Nakhshi Telia, Hind., *Phillips.*

Tilgiri, Kaschmir, *Theobald.*

Sighergik, Turks., *Dickson and Ross.*

*a. b.* ♂ ♀. jun. Bagdad. Presented by Commander Jones.

*c.* ♂. Olipore. *d. e.* Cabul. Adult and young. From Griffith's Collection.

*f. g. h. i.* ♂ ♀. Nepal. Adult and young. (*St. indicus*, Hodgs.) Presented by B. H. Hodgson, Esq.

*j. k.* China. From Reeves's Collection.

"Very common at Erzeroum. Frequents the habitations of man, and feeds in fields, &c.: these birds are also the constant attendants of cattle while grazing; at sunset they return in large flocks to roost upon trees and eaves of houses. They arrive in the beginning of March and depart late in November."—(Messrs. Dickson and Ross.)

"Arrives at Candahar in the winter months only, and departs in the spring."—(Hutton.)

"Breeds in the valley of Kaschmir generally, in holes of bridges, tall trees, &c. Eggs ovate pyriform $\frac{1}{0}\cdot\frac{1}{8}\frac{5}{5}$; pale clear bluish green."—(Theobald.)

"Generally appears in great flocks in the neighbourhood of Muttra in the cold weather."—(Rev. T. Phillips's MS. Notes.)

Captain Hutton remarks: "I observed that the *St. unicolor* was far more numerous at Candahar than the *St. vulgaris*, and inclined to keep separate from them; the flocks being sometimes without a single spotted bird among them. *St. vulgaris* remains here only during the coldest months, and departs as spring approaches; whereas *St. unicolor* builds in the spring at Candahar, laying seven or eight blue eggs, and the young are fledged about the first week in May. In life, the bill is brown, not yellow."

Genus Sturnopastor, *Hodgs., Gray's Zool. Misc. p.* 84 (1844).
Psarites, *Cabanis, Cat. B. Mus. Heine, p.* 203 (1851).

801. *STURNOPASTOR CONTRA, Linn. Sp.*

Sturnus contra, *Linn. S. N.* I. *p.* 290. *Griffith's An. Kingd.* VI. *p.* 424. *Sundevall, Physiogr. Sällsk. Tidsk.* (1837), *p.* . *Ann. Nat. Hist.* XVIII. *p.* 305. *Jerdon, Madr. Journ.* XI. *p.* 20. *G. R. Gray, Gen. of Birds*, II. *p.* 377. *Hodgs., Cat. B. of Nep. p.* 104. *Blyth, Ann. Nat. Hist.* XIII.

*p.* 368; *J. A. S. Beng.* XIII. *p.* 366; *Cat. B. Mus. A. S. Beng. p.* 109. *Tickell, J. A. S. Beng.* XVII. *p.* 301. *Tytler, Ann. Nat. Hist.* XIII. *n. s. p.* 368.

Sturnopastor contra, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84. *Blyth, Ann. Nat. Hist.* XII. *p.* 97. *Bonap., C. G. Av. p.* 420.

Pastor contra, *Wagler, Syst. Av. P. sp.* 18.

Psarites contra, *Cabanis, Cat. B. Mus. Heine, p.* 203.

Sturnus capensis, *Linn., S. N.* I. *p.* 290. *Lath., Hist. of Birds,* III. *p.* 154.

Pastor auricularis, *Drapiez, Dict. Class. d'Hist. Nat.*

Pastor Jalla, *Horsf., Trans. Linn. Soc.* XIII. *p.* 155.

Black and White Indian Starling, *Edwards, Birds, t.* 187.

Common Pied Mynah, *Tickell.*

Gosalic Grakle, *Latham.*

Ablac Maina of the Hindoos, *Hodgson. F.* (*B.*) *Hamilton.*

Ablaka, Hind., *F.* (*B.*) *Hamilton. Blyth.*

Gosalic, Beng., *F.* (*B.*) *Hamilton.*

Guia-leggra, Beng., *Blyth.*

Qwyai-dzaret, Arracan, *Phayre.*

Jallak, or Jallakuring, Java, *Horsfield.*

*a. b. c.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

D. E. ♀. Bengal. From McClelland's Collection.

*f. g.* juv. Bengal. From the Asiatic Society of Bengal.

H. *i.* ♂. Java. (*P. Jalla,* Horsf.) From Dr. Horsfield's Collection.

*j.* Drawing. From F. (B.) Hamilton's Collection.

"A very abundant species about Calcutta, and scarcely less familiar in its habits than *P. tristis,* but does not venture into the streets."—(Blyth.)

"Occurs in great abundance in the district of the Northern Circars; I observed it a few miles north of Vizagapatam, and throughout the whole district to the northward, as far as the Goom soor country, where it is very numerous. It lives in large flocks, feeding on the ground, and associates freely with *P. tristis.* It is frequently caged for its song."—(Jerdon.)

"Nest large, circular, shallow, sometimes a foot in diameter; of

twigs, grasses, and down; high up in mango, mowhooa, or doomoor trees; often on bamboos. Eggs five, $1\frac{1}{8} \times \frac{13}{16}$, size ordinary, of a clear greenish verditer-blue."—(Captain Tickell.)

Captain R. C. Tytler states, that he had seen "some tame specimens of this Starling which could imitate sounds very well, being often kept by the natives."

Genus Gracupica, *Less.*, *Tr. d'Orn. p.* 401 (1831).

802. *GRACUPICA NIGRICOLLIS*, *Paykull Sp.*

Gracula nigricollis, *Paykull, Nova Acta Holm.* XXVIII. *t.* 9 (1807).

Acridotheres nigricollis, *G. R. Gray, Gen. of Birds*, II. *p.* 335.

Pastor temporalis, *Temm. Wagler, Syst. Av.* (1827), *Past. sp.* 7. *Griffith's An. Kingd.* VI. *p.* 422. *G. R. Gray, Gen. of Birds*, II. *p.* 334. *Blyth, J. A. S. Beng.* XIII. *p.* 366; *Cat. B. Mus. A. S. Beng. p.* 109.

Sturnopastor temporalis, *Blyth, J. A. S. Beng.* XV. *p.* 36. *Bonap., C. G. Av. p.* 421.

Gracupica melanoleuca, *Less., Tr. d'Orn. p.* 401 (1831).

Sturnopastor melanoleuca, *G. R. Gray, Gen. of Birds*, II. *p.* 336.

Pastor bicolor, *J. E. Gray, Zool. Misc.* (1832), *p.* 1.

White-headed Grakle, *Lath., Hist. of Birds*, III. *p.* 150.

A. *b. c.* ♂. Siam. From Finlayson's Collection.

Genus Temenuchus, *Cabanis, Cat. B. Mus. Heine, p.* 204 (1851).

Hetærornis, *G. R. Gray, Gen. of Birds*, II. *p.* 335 (1847), *nec. Hodgson* (1841).

803. *TEMENUCHUS PAGODARUM*, *Gmelin Sp.*

Turdus pagodarum, *Gmel., S. N.* I. *p.* 816. *Lath., Hist. of Birds*, III. *p.* 150. *F.* (*B.*) *Hamilton, MS.* III. *p.* 7.

Temenuchus pagodarum, *Cabanis, Cat. B. Mus. Heine, p.* 204 (1851).

Pastor pagodarum, *Wagler, Syst. Av. Past. sp.* 8. *Sykes, P. Z. S.* (1832), *p.* 95. *Jerdon, Madr. Journ.* XI.

*p.* 21. *Hodgs., Cat. B. of Nep. p.* 103. *Blyth, Ann. Nat. Hist.* XII. *p.* 97.

Sturnia pagodarum, *Blyth, J. A. S. Beng.* XIII. *p.* 363; XV. *p.* 285; XVI. *p.* 470; *Cat. B. Mus. A. S. Beng. p.* 110.

Hetærornis pagodarum, *G. R. Gray, Gen. of Birds,* II. *p.* 335. *Bonap., C. G. Av. p.* 419. *Layard, Ann. Nat. Hist.* XIII. *n. s. p.* 217.

Acridotheres pagodarum, *Vieill., Enc. Méth. p.* 689.

Sylvia nigricollis, *Lath., Ind. Orn.* II. *p.* 553; *Gen. Hist. of Birds,* VII. *p.* 129.

Turdus melanocephalus, *Vahl., Mém. de la Soc. Copenh.* III. *pt.* 2, *t.* 8 (1792).

Sturnus subroseus, *Shaw, Nat. Misc. No.* 805.

Maina sylvestris, *Hodgs., J. A. S. Beng.* V. *p.* 771 (1836).

Pastor nigriceps, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84.

The Pagoda Starling.

Brahminee Mynah of Europeans in India, *Jerdon.*

Popoya Maina, Hind., *Jerdon.*

Monghyr Pawi, Beng., *Blyth.*

Pabiya Pawi, Muttra, *Rev. T. Phillips.*

Puhaia, Upper Provinces, *Blyth.*

*a. b. c.* ♂ ♀. Adult and young. Cabul. From Griffith's Collection.

*d.* Upper India. From Dr. Falconer's Collection.

*e.* Kumaon. Presented by Captain R. Strachey.

F. G. Dukhun. Presented by Colonel Sykes.

*h.* Drawing. From F. (B.) Hamilton's Collection.

"An abundant species in the Carnatic, and occasionally observed in other parts of Southern India; in Lower Bengal, it is chiefly met with towards the close of the cool season, frequenting the arboreal cotton then in bloom. It may often be obtained of the Calcutta birdcatchers."—(Blyth.)

"The Carnatic appears to be the head-quarters of this bird, as it is the only district in which it can be said to be numerous. It is extremely numerous, and feeds chiefly on the ground, on grasshoppers and other insects, in small parties, and is very sprightly and

active, walking and hopping about, sometimes in company with *P. tristis*, and often seen among cattle. It also, however, feeds on trees, on various fruits, berries, and flower-buds, and this seems to be its usual habit on the few occasions I have observed it out of the Carnatic. Its notes are somewhat similar to those of *P. tristis;* it has also, however, a pleasant song."—(Jerdon.)

"This species is not uncommon in the north of the island of Ceylon, but I never met with it in the south. Dr. Kelaart found it in Fort Frederick at Trincomalie. I think it breeds at Point Pedro, as I shot several young birds in September with the cere still on the base of the bill. They frequented the ploughed lands in small flocks of four, five, or six individuals, and fed on small insects and grubs."—(Layard.)

804. *TEMENUCHUS MALABARICUS*, *Gmelin Sp.*

Turdus malabaricus, *Gmel.*, *S. N.* I. *p.* 816. *Lath.*, *Hist. of Birds*, III. *p.* 151. *F.* (*B.*) *Hamilton*, *MS.* I. *p.* 16.

Temenuchus malabaricus, *Cabanis*, *Cat. B. Mus. Heine*, *p.* 204.

Sturnia malabarica, *Blyth*, *J. A. S. Beng.* XIII. *p.* 363; *Cat. B. Mus. A. S. Beng. p.* 110. *Tytler*, *Ann. Nat. Hist.* XIII. *n. s. p.* 368.

Acridotheres malabaricus, *Vieill.*, *Enc. Méth. p.* 691. *Pearson*, *J. A. S. Beng.* X. *p.* 649.

Pastor malabaricus, *Jerdon*, *Madr. Journ.* XIII. *pt.* 2, *p.* 133.

Hetærornis malabaricus, *G. R. Gray*, *Gen. of Birds*, II. *p.* 335. *Bonap.*, *C. G. Av. p.* 419.

Pastor cinereus, *Jerdon*, *Madr. Journ.* XI. *p.* 23 (1840).

Pastor caniceps, *Hodgs.*, *Gray's Zool. Misc.* (1844), *p.* 84. *Blyth*, *Ann. Nat. Hist.* XII. *p.* 97.

Maina affinis, *Hodgs.*, *J. A. S. Beng.* V. *p.* 771 (1836).

Pastor pagodarum (♀), *apud Wagler*, *Syst. Av. sp.* 8. *McClell.*, *P. Z. S.* (1839), *p.* 163.

Pastor Blythii, *apud Hodgs.*, *Cat. B. of Nep. p.* 104.

? Pastor nanus, *Lesson*, *Tr. d'Orn.*

? Gracula cinerea, *Lesson*, *Tr. d'Orn.*

Malabar Grackle, *Latham.*

Grey-headed Mynah, *Jerdon.*

Pawi, Hind., *Blyth.*

Dessee Pawi, Beng., *F.* (*B.*) *Hamilton.*

*a. b. c. d.* ♂ ♀. Nepal. (*P. caniceps*, Hodgs.) Presented by B. H. Hodgson, Esq.

*e. f. g.* ♂ ♀. and young. Calcutta. From the Asiatic Society of Bengal.

*h. i.* ♂. and Drawing. Assam. From McClelland's Collection.

*j.* ♂. Tenasserim. From Helfer's Collection.

*k.* Drawing. From F. (B.) Hamilton's Collection.

"This species is very common in Bengal, Nepal, and Assam, and apparently rare, or perhaps local, in the peninsula of India."—(Blyth.)

Captain Tytler observes, that "they are common at Barrackpore, keeping together in large flocks, and build in the hollows of trees."

"This species occurs in the Carnatic in the cold season only, frequenting the tops of high trees, and is generally dispersed through the southern part of the Peninsula, preferring the more wooded portions of the country."—(Jerdon.)

"Dessee Powi signifies the native Powi,—called so by the people of Calcutta from its being found in that neighbourhood. It builds its nest in small bushes, and goes in flocks. Feeds on seeds and fruits."—(F. (B.) Hamilton.)

805. *TEMENUCHUS BLYTHI*, *Jerdon Sp.*

Sturnia Blythi, *Jerdon, Madr. Journ.* XIII. *pt.* 2, *p.* 133 (1844); *Illustr. Ind. Orn. t.* 22. *Blyth, J. A. S. Beng.* XVI. *p.* 470; *Cat. B. Mus. A. S. Beng. p.* 110.

Pastor malabaricus, *apud Jerd., Madr. Journ.* XI. *p.* 22.

Sturnia dominicana, *apud Blyth, J. A. S. Beng.* XIII. *p.* 363.

The White-headed Mynah, *Jerdon.*

*a.* S. India. Presented by J. Gould, Esq., January, 1856.

"The White-headed Mynah is only found in the forests of Malabar and the more southern portions of the west coast, and here it is by no means either common or abundant. It frequents lofty trees in small families, and on which it procures its food, consisting of insects and

their larvæ, also small shells (*Bulimi*), which I have found entire in its stomach. Its usual cry is neither so loud nor so harsh as that of most of the Mynahs, and it has a very pleasing song. I have no doubt, like the others of its genus, it nidificates in holes of trees, and lays three or four greenish-blue eggs, but I have not had an opportunity of observing this. It climbs about the trunk and branches of trees with great facility, and never, that I observed, descends to the ground."—(Jerdon.)

Genus ACRIDOTHERES, *Vieill., Analyse* (1816).

MAINA, *p. Hodgs., J. A. S. Beng.* V. *p.* 771.

806. *ACRIDOTHERES TRISTIS, Linn. Sp.*

Paradisea tristis, *Linn., S. N.* I. *p.* 167. (*Pl. Enl.* 219.)

Acridotheres tristis, *Vieill., Analyse, p.* (1816). *G. R. Gray, List Gen. of Birds* (1840), *p.* 54; *Gen. of Birds*, II. *p.* 335. *Blyth, J. A. S. Beng.* XIII. *p.* 361; XV. *p.* 314; *Ann. Nat. Hist.* XX. *p.* 384. *Tickell, J. A. S. Beng.* XVII. *p.* 304. *Hutton, J. A. S. Beng.* XVII. *pt.* 2, *p.* 8. *Bonap., C. G. Av. p.* 419. *Cabanis, Cat. B. Mus. Heine, p.* 205. *Theobald, J. A. S. Beng.* XXIII. *pp.* 597, 602. *Layard, Ann. Nat. Hist.* XIII. *n. s. p.* 218. *Tytler, Ann. Nat. Hist.* XIII. *n. s. p.* 368. *Phillips, MS. p.* 16.

Pastor tristis, *Wagler, Syst. Av. sp.* 5. *Sykes, P. Z. S.* (1832), *p.* 95. *McClell., P. Z. S.* (1839), *p.* 163. *Jerdon, Madr. Journ.* XI. *p.* 20. *Pearson, J. A. S. Beng.* X. *p.* 648. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nep. p.* 104. *Blyth, Ann. Nat. Hist.* XII. *p.* 96. *Burgess, P. Z. S.* (1854), *p.* 144.

Gracula tristis, *Lath., Hist. of Birds*, III. *p.* 147. *Sundevall, Physiogr. Sällsk. Tidsk.* (1837), *Ann. Nat. Hist.* XVIII. *p.* 303.

Gracula gryllivora, *Daudin, Orn.* II. *p.* 285.

Maina tristoides, *Hodgs., J. A. S. Beng.* V. *p.* 771 (1836).

Turdus Salica, *F.* (*B.*) *Hamilton, MS.* I. *p.* 12.

Paradise Grackle, *Latham.*

The Common Hill Mynah.

Maina, Hind., *Jerdon.* *Blyth.*
Dasee Maina, Hind., *F.* (*B.*) *Hamilton.* *Tytler.*
Salik, Bengal, *F.* (*B.*) *Hamilton.*
Bhat Salik, Bengal, *Blyth.*
Bunnee, or Saloo, *Tickell.*
Saloonka, Mahratta, *Jerdon.*
Gorwuntra, Canara, *Jerdon.*
Gong-cowdea, Ceylon, *Layard.*
Nacanam-patchy, Mal., *Layard.*
Dza-ret-monk, Arracan, *Blyth.*

*a. b. c.* ♂ ♀. Nepal. (*M. tristoïdes*, Hodgs.) Presented by B. H. Hodgson, Esq.

*d. e.* ♂ ♀. Pushut. Shikapore. From Griffith's Collection.

*f.* Assam. From McClelland's Collection.

*g.* ♂. Kumaon. Presented by Captain R. Strachey.

*h.* Drawings of bird, nest and eggs. From F. (B.) Hamilton's Collection.

*i. j.* ♂ ♀. Dukhun. Presented by Colonel Sykes.

*k.* Young. Bengal. From the Asiatic Society of Bengal.

"This species is exceedingly numerous throughout India, in the vicinity of human abodes and cultivation, and remarkable for its familiarity. It is one of the street birds of Calcutta, though keeping to the more open situations; it mingles frequently with the crows; and a pair not unfrequently enter my sitting-room, the male treating me with his loud screeching song therein. They breed in nooks of houses, and, very commonly, in vessels hung out for that purpose by the natives."—(Blyth.)

C. W. Smith, in his MS. Notes, says, "This is a very prolific bird, and has several broods during the year. A pair made their nest in the beams of my verandah during the rainy season of 1822, and, to my surprise, had two successive broods within a very short period of each other. It is a brisk, lively bird, apt to learn words and to whistle, and withal becomes very attached to its master; so much so, that instances are known in which it has been allowed to range abroad during the day, with a confidence of its return at night."—(Pearson.)

"Lives in great noisy crowds about Calcutta. In their mode of life, they resemble both starlings and jackdaws; indeed, they are quite like the latter when they walk upon the ground, nodding their heads at every step. Their flight is heavy, with a strong motion of the wings, but when they stop, the wings are held still and expanded. In the morning and evening, they sit in flocks on the trees, and make a fearful noise with their chattering voices. They eat chiefly rice, but often insects, especially crickets."—(Sundevall.)

"This is never found in high or dense jungle; it roosts in numerous flocks, generally on high trees, and disperses in various parties of two, four, six, or more, about sunrise: some enter the villages and cantonments, others attend flocks of cattle, which they follow while grazing, feeding on the grasshoppers and other insects. It will also feed on grain, and seeds of various kinds, and is very fond of white ants. Its flight is swift, steady, and direct. It breeds in holes of old trees, walls, and buildings, &c., during the hot weather. It is very often taken when young and caged, becoming very familiar, learning to repeat words and sentences with great ease. Its cries are many and varied, most of them harsh, loud, and disagreeable, but it has also some sweet and agreeable notes. This bird, as I learn from Mr. Elliot's Notes, is sacred to Ram-deo, on whoes hand it sits."—(Jerdon.)

"This is a summer visitor in the hills, and arrives at Masuri with the *A. fuscus*, Wagl. It builds in the hole of a tree, which is lined with dry grass and feathers; and on no occasion have I ever seen a nest made *on the branches* of a tree, whereon which the nest was composed of 'twigs and grass within' (as stated by Captain Tickell)."—(Captain Hutton.)

"Nest composed of roots and other rubbish, in trees or holes in houses, verandahs, &c.—June. Eggs five, ovato-pyriform, $\frac{1 \cdot 2}{0 \cdot 8}\frac{0}{5}$; pale bluish-green. In Cashmere, the nest and eggs were found in the month of April."—(Theobald.)

"This is common in Ceylon, frequenting meadows in search of worms, grubs, and not refusing perfect beetles when they come in their way; they scratch among the ordure of cattle (whence their native appellation), and scatter it far and wide over the fields; like the other Mynahs, also, they often perch on the backs of cattle in search of ticks. Breed in hollow trees, making a nest of fibres and dry grasses, laying from three to five light-blue eggs. Axis 13 lines, diam. 10 lines. Young birds hatched in March and April."—(E. L. Layard.)

807. *ACRIDOTHERES GINGINIANUS, Latham Sp.*

Turdus ginginianus, *Lath., Ind. Orn.* I. *p.* 362 (1790). *F.* (*B.*) *Hamilton, MS.* I. *p.* 77.

Acridotheres ginginianus, *Vieill. Blyth, J. A. S. Beng.* XIII. *p.* 361; XV. *p.* 34; *Cat. B. Mus. A. S. Beng. p.* 108. *Bonap., C. G. Av. p.* 419. *Cabanis, Cat. B. Mus. Heine, p.* 106. *Theobald, J. A. S. Beng.* XXIII. *p.* 597.

Gracula ginginiana, *Daudin, Orn.* II. *p.* 288. *Lath., Hist. of Birds,* III. *p.* 153.

Pastor ginginianus, *Blyth, Ann. Nat. Hist.* XII. *p.* 96. *Hodgs., Cat. B. of Nep. p.* 104.

Hetærornis ginginiana, *G. R. Gray, Gen. of Birds,* II. *p.* 335.

Gracula grisea, *Daudin, Orn.* II. *p.* 286 (1800). *Lath., Hist. of Birds,* III. *p.* 152. (*Levaill., Ois. d'Afr. t.* 95, *f.* 2.)

Pastor griseus, *Wagler, Syst. Av. sp.* 9 (1827).

Gracula cinerea, *Valencienne.*

Pastor gregicolus, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84.

Pastor mahrattensis, *apud Royle, Himalaya Bot. p.* 76.

Gingi Grackle, *Latham.*

Bank Mynah, *Blyth.*

Ganga Maina, Hind., *Blyth.*

Ram Salik, Bengal, *F.* (*B.*) *Hamilton.*

Gang Salik, *i. e.* Ganges Mynah, Bengal, *Blyth.*

Gang Maina, Upper India, *Theobald.*

Barde Maina, Nepal, *Hodgson.*

Lali, Scinde, *Burnes.*

Gilgila, Upper Provinces, *Blyth.*

*a. b. c. d.* ♂ ♀. Nepal. (*P. gregicolus,* Hodgs.) Presented by B. H. Hodgson, Esq.

*e.* Candahar. From Griffith's Collection.

*f.* ♂. Darjeeling. From Pearson's Collection.

*g.* ♀. Bootan. From Pemberton's Collection.

*h.* Himalaya. From Royle's Collection.

*i.* Drawing. From F. (B.) Hamilton's Collection.

"One of the commonest birds in the vicinity of the great rivers of Upper India which have high banks, not occurring so low down the Hoogly as Calcutta, but abounds as soon as the banks of the Hoogly become of sufficient height for it to burrow in with tolerable security; and, on ascending the river, makes its appearance soon after the common Indian Bank Swallow (*Hirundo sinensis*, Gray). Mr. Hodgson well named this species *P. gregicolus*, for it constantly associates with the herds of cattle on open pastures; and populous communities of them perforate deep holes in the perpendicular banks of rivers, in which they repose and breed. It is also common in the Tenasserim provinces."—(Blyth.)

"Nest, a hole in the sand at the end of a gallery run into a steep bank; many nests in company. Eggs seven or eight, ovato-pyriform, $\frac{1 \cdot 0 8}{0 \cdot 8 1}$, of a clear greenish-blue. May 3rd."—(Theobald.)

808. *ACRIDOTHERES CRISTATELLUS, Linn. Sp.*

Gracula cristatella, *Linn., S. N.* I. *p.* 165. *Lath., Hist. of Birds*, III. *p.* 164. (*Pl. Enl.* 507.)

Acridotheres cristatellus, *Blyth, J. A. S. Beng.* XV. *p.* 33; *Cat. B. Mus. A. S. Beng. p.* 108. *Bonap., C. G. Av. p.* 419. *Cabanis, Cat. B. Mus. Heine, p.* 205.

Hetærornis cristatella, *G. R. Gray, Gen. of Birds*, II. *p.* 335.

Pastor cristatella, *p. Wagler, Syst. Av. sp.* 14.

Acridotheres fuliginosus, *Blyth, J. A. S. Beng.* XIII. *p.* 362 (*young*).

Chinese Starling, *Edwards, Birds, t.* 19.

Chinese Crested Mynah.

*a. b. c.* Adult and young. China. From Reeves's Collection.

This species appears to be found only in China.

809. *ACRIDOTHERES JAVANICUS, Cabanis.*

Pastor griseus,* *Horsf., Trans. Linn. Soc.* XIII. *p.* 154 (1820).

Acridotheres javanicus, *Cabanis, Cat. B. Mus. Heine, p.* 205 (1851).

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* Previously used by Daudin (vide *Acrid. ginginianus*).

Acridotheres griseus, *Bonap., C. G. Av. p.* 420.
Pastor cristatellus, *apud Vigors, Mem. Raffles, p.* 664.
Jallak Sungu, Java, *Horsfield.*
The Javan Crested Mynah.

A. (type). Java. From Dr. Horsfield's Collection.
B. Sumatra. From Sir S. Raffles's Collection.

The specimen from Java is ashy-black above, with head and cheeks black, as in *A. fuscus*, and crested only as in that species; wings brown-black; primaries quite black, the base of the feathers white,—this increasing on the primaries; speculars white; body beneath ash-colour (almost the same as in *A. ginginianus*); under wing-coverts blackish; tail black, broadly tipped with white,—this increasing to three-quarters of an inch on the outer feather; under tail-coverts blackish at the base, the rest being white, this colour predominating in length; bill yellowish-red, paler at base; feet yellow.

Length 8 in., of wing $4\frac{3}{4}$ in., tail $2\frac{3}{4}$ in., and tarsus $1\frac{3}{8}$ in.

The Sumatran specimen is deep glossy-black, with white markings exactly as in the Java bird; the erectile crest being $1\frac{4}{8}$ in. in length. The size of the bird is somewhat larger, being in length 9 in., wing $5\frac{1}{2}$ in., tail $3\frac{1}{4}$ in., tarsus $1\frac{1}{2}$ in.; bill the same in size and colour. The latter, if new, *A. grandis*, Moore.

810. *ACRIDOTHERES FUSCUS, Wagler Sp.*

Pastor fuscus, *Wagler, Syst. Av. sp.* 6 (1827). *Griffith's Cuvier, Av. p.* 442. *Jerdon, Madr. Journ.* XI. *p.* 21. *Blyth, J. A. S. Beng.* XI. *p.* 885. *F.* (*B.*) *Hamilton, MS.* II. *pp.* 76, 82.

Acridotheres fuscus, *Blyth, J. A. S. Beng.* XIII. *p.* 362. *Bonap., C. G. Av. p.* 420.

Pastor mahrattensis, *Sykes, P. Z. S.* (1832), *p.* 95. *Hodgson, Cat. B. of Nep. p.* 103.

Maina cristatelloïdes, *Hodgson, J. A. S. Beng.* V. *p.* 771 (1836).

Acridotheres cristatelloïdes, *Cabanis, Cat. B. Mus. Heine, p.* 206.

Gracula cristatella, *apud Sundevall, Physiogr. Sällsk. Tidsk.* (1837), *Ann. Nat. Hist.* XVIII. *p.* 304.

Acridotheres cristatellus, *apud Blyth, J. A. S. Beng.* XIII. *p.* 362; *Ann. Nat. Hist.* XII. *p.* 97. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84.

Acridotheres griseus, *apud Blyth, J. A. S. Beng.* XV. *p.* 33; *Ann. Nat. Hist.* XII. *pp.* 320, 384; *Cat. B. Mus. A. S. Beng. p.* 108. *Hutton, J. A. S. Beng.* XVII. *pt.* 2, *p.* 8. *Tytler, Ann. Nat. Hist.* XIII. *n. s. p.* 368; XIV. *p.* 174.

Sub-crested Mynah, *Blyth.*

Dusky Mynah, *Blyth.*

Jhontee Maina, or Jhont Salik, Bengal, *Blyth.*

Dza-rek-monk-teng, Arracan, *Phayre.*

A. Dukhun. (*P. mahrattensis*, Sykes.) Presented by Colonel Sykes.

*b.* Young. Madras. From Wight's Collection.

*c. d.* Adult and young. Assam. From McClelland's Collection.

*e. f. g. h.* Adults. Nepal. (*M. cristatelloïdes*, Hodgs.) Presented by B. H. Hodgson, Esq.

*h.* China. From Reeves's Collection.

*i. j. k.* Adult and young. Tenasserim. From Helfer's Collection.

*l. m. n.* Pinang and Malacca. Presented by Dr. Cantor, 1854.

Colonel Sykes remarks: "Sexes alike. Found only in the Ghauts. Stony fruit taken from the stomach of three birds. Irides grey."

"Found in great abundance on the Neilgherries, where it accompanies cattle like the *A. tristis* (whose place it supplies here), and also frequents gardens, eating various seeds and fruit. I have also seen this species in the Wynaad, and, I believe, also in Mysore. Irides greyish-white."—(Jerdon.)

In Nepal, Mr. Hodgson remarks, "perpetually associating with *A. tristis;* every large flock of which has many individuals of this bird among them."

"Always nidificates in the hollow of trees. Common in Bengal."—(Blyth.)

"In the neighbourhood of Dacca, this bird builds in the old temples and houses about the sepoys' huts: this is rather curious; for at Masuri, in the Himalayas, they invariably select large trees for their nests. It is not unusual, during the hours of parade in the morning, to see numbers of these birds feeding fearlessly near the

soldiers. This reminds me of what I have frequently seen in the *A. tristis* and *St. contra*, that they become so accustomed, from living in the neighbourhood of regimental target-butts, as to allow the balls to pass over them, whilst they have fearlessly fed between the targets and the soldier practising."—(Captain R. C. Tytler.)

"This is a summer visitant in the hills, and is common at Masuri during that season, but it does not appear to visit Simla, although it is to be found in some of the valleys below it to the south. It breeds at Masuri in May and June, selecting holes in the forest-trees, generally large oaks, which it lines with dry grass and feathers. The eggs are from three to five, of a pale greenish-blue; shape ordinary, but somewhat inclined to taper to the smaller end; diameter $1\frac{3}{16} \times \frac{13}{16}$ in., or $1\frac{2}{16} \times \frac{12}{16}$ in. This species usually arrives from the valley of the Doon about the middle of March; and until they begin to sit on their eggs, they congregate every morning and evening into small flocks, and roost together in trees near houses; in the morning they separate for the day into pairs, and proceed with the building of nests or laying of eggs. After the young are hatched and well able to fly, all betake themselves to the Doon in July."—(Captain Hutton.)

Genus Pastor, *Temm., Man. d'Orn. p.* 82 (1815).

Psaroïdes, *Vieill., Analyse, p.* 42 (1816).

Boscis, *Brehm., Isis, p.* 1282 (1828).

Nomadites, *Petaniz* (183–).

Thremmophilus, *Macgill., Hist. Brit. Birds*, I. *p.* 160 (1837).

811. *PASTOR ROSEUS, Linn. Sp.*

Turdus roseus, *Linn., S. N.* I. *p.* 294. *Lath., Hist. of Birds*, V. *p.* 42. *F.* (*B.*) *Hamilton, MS.* I. *p.* 13.

Pastor roseus, *Temm., Man. d'Orn.* (1815), *p.* 83. *Wagler, Syst. Av. Past. sp.* 12. *Gould, Birds of Eur. t.* 212. *Sykes, P. Z. S.* (1832), *p.* 95. *Jerdon, Madr. Journ.* XI. *p.* 23. *Hodgs., J. A. S. Beng.* V. *p.* 773; *Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nep. p.* 103. *Blyth, Ann. Nat. Hist.* XII. 1*st ser. p.* 97; *J. A. S. Beng.* XIII. *p.* 365; *Cat. B. Mus. A. S. Beng. p.* 111. *G. R. Gray, Gen. of Birds*, II. *p.* 334; *Cat. Brit. B. in Brit. Mus. p.* 97. *Hutton, J. A. S. Beng.* XVI. *p.* 779. *Bonap., C. G.*

*Av. p.* 421. *Cabanis, Cat. B. Mus. Heine, p.* 203. *Layard, Ann. Nat. Hist.* XIII. 2*nd ser. p.* 217. *Burgess, P. Z. S.* (1854), *p.* 158.

Sturnus roseus, *Pallas, Itin.* II. *p.* 491; *Zoogr. p.* 420. *Scopoli, Ann.* I. *p.* 130.

Gracula rosea, *Cuvier.*—*Gloger, Eur. p.* 169. *Sundevall, Physiogr. Sällsk. Tidsk.* (1837), *p.* ; *Ann. Nat. Hist.* XVIII. 1*st ser. p.* 304.

Boscis roseus, *Brehm., Vœg. Deutschl. p.* 401, *t.* 22, *f.* 4.

Thremmophilus roseus, *Macgill., Hist. Brit. B.* III. *p.* 613.

Turdus seleucis, *Gmel., S. N.* I. *p.* 837.

Turdus suratensis, *Gmel., S. N.* I. *p.* 814. *Lath., Hist. of Birds,* V. *p.* 110. (*Sonn., Voy. Ind.* II. *p.* 194.)

The Rose-coloured Starling.

Cholum Bird of Europeans in the Carnatic, *Jerdon.*

Golabi Maina, Hind., *F.* (*B.*) *Hamilton. Blyth. Hutton.*

Tillyer, Hind., *Jerdon.*

Bya, Scinde, *Burnes.*

*a.* ♂. Olipore. From Griffith's Collection.

*b. c.* ♂ ♀. Scinde. Presented by Dr. H. Gould.

*d.* ♂. Darjeeling. From Pearson's Collection.

*e. f.* Dukhun. Presented by Colonel Sykes.

*g.* ♂. Drawing. From F. (B.) Hamilton's Collection.

"This bird arrives at Candahar in immense flocks in the spring, but disappears with the mulberries, which they devour greedily. Their stay is very short." ["The same is remarked by Vigne, who, from observation, states it to visit Persia, Afghanistan, and parts of India, in the mulberry season."—Blyth.]—(Hutton.)

"Very common in many parts of India, but visits the neighbourhood of Calcutta only towards the end of the cool season, when flocks of them are not unfrequently observed upon the arboreal cotton then in bloom."—(Blyth.)

"This well-known species makes its appearance in the peninsula of India about the end of November or beginning of December, associating in vast flocks, and commits great havoc on the grain-fields, especially in those of the *Cholum* or *Jowaree* (Andropogon

Sorghum), whence its common name. When the grain is cut, it commonly feeds on insects, seeking them on the ground, also on various grass-seeds, fruit, and flower-buds. It disappears in March, though straggling parties are met with even in April. The majority of birds in a flock are in immature plumage, the delicate salmon-colour of the adult bird being replaced by a dirty fawn-colour." Mr. Elliot has the following interesting note on this species:—"Is very voracious and injurious to the crops of the white *Jowaree*, in the fields of which the farmer is obliged to station numerous watchers, who, with slings and a long rope or thong (which they crack dexterously, making a loud report), endeavour to drive the depredators away. The moment the sun appears above the horizon, they are on the wing, and, at the same instant, shouts, cries, and the cracking of the long whips resound from every side. The Tillyers, however, are so active, that if they are able to alight on the stalks for an instant, they can pick out several grains. About 9 or 10 o'clock, a.m., the exertions of the watchmen cease, and the Tillyers do not renew their plundering till the evening. After sunset, they are seen in flocks of many thousands, retiring to the trees and jungles for the night. They prefer the half-ripe *Jowaree*, whilst the farinaceous matter is still soft and milky."—(Jerdon.)

"In Ceylon," remarks Mr. Layard, "I found large flocks of these birds at St. Pedro in July, but not one specimen, out of the many which fell at several discharges from a large gun into the huge flocks which for several days frequented one locality, proved an adult bird. They were very wary, and I could only approach them by creeping up behind hedges, and then raking them, as they rose, with my largest gun. At the end of about a week, they disappeared, and I saw no more of them. They were entirely unknown to the natives. Mr. Brodie, a fellow-worker in Ceylon zoology, found a few at Putlam, and noticed their extreme wildness; they perched on the summit of the low bushes which dotted the open plains, and he only succeeded in obtaining a single specimen, although he followed them for several days."

"August 24, 1850.—Saw a large flock of the Rose-coloured Starling, with their broods, feeding in an open field, evidently on insects, as they were constantly in chase of them flying. I never saw this bird so early as it was in that year (as in general it visits the Deccan about November); and they arrived long before the *Jowaree* grain was ripe. This grain is their staple food: after it is cut and housed, I have observed them busily feeding on the flowers of

the leafless caper, a shrub very common in many parts of the Deccan, especially on the banks of the larger rivers. I have made many, but ineffectual, attempts to ascertain where these birds breed. That they do breed somewhere on the continent of India, there can be no doubt, as the young birds which I saw on the 24th of August were in brown plumage, and appeared as if they had not long left the nest. I was informed by a clever and well-informed Mahratta, who seemed to have considerable knowledge of the habits of various birds, that this bird retires to the Ghauts to breed. On visiting those mountains, I made many inquiries of the hill people, but was unsuccessful in getting any information from them; however, I think it very probable that these birds, after leaving the Deccan in March and April, break up into pairs and retire to the ravines and forests in the Ghauts to breed."—(Lieutenant Burgess.)

Mons. Carl J. Sundevall remarks: "While sailing in the Indian Ocean, two young individuals of this bird came on board; one near the southern point of Ceylon, December 14; the other alighted on the ship half-way between Ceylon and the north point of Sumatra, at least 100 geographic miles from each, and 80 or 90 miles from the Andaman Isles. The wind had been north-west; so that it probably came from the Indian coast. Both these birds soon became so tame as to eat out of the hand, and we fed them abundantly on cock-roaches."

812. *PASTOR MELANOPTERUS, Daudin Sp.*

Gracula melanoptera, *Daudin, Orn.* II. *p.* 286 (1800). *Griffith's An. Kingd.* VI. *p.* 423.

Pastor melanopterus, *Wagler, Syst. Av. Past. sp.* 11.

Acridotheres melanopterus, *Vieill., Enc. Méth. p.* 689. *Cabanis, Cat. B. Mus. Heine, p.* 206.

Sturnopastor melanopterus, *Bonap., C. G. Av. p.* 420.

Hetærornis melanoptera, *G. R. Gray, Gen. of Birds,* II. *p.* 335.

Pastor tricolor, *Horsf., Trans. Linn. Soc.* XIII. *p.* 155 (1820). *Lath., Hist. of Birds,* III. *p.* 155. *G. R. Gray, Gen. of Birds,* II. *t.* 83.

Pastor candidus, *Temminck, in litt.*

Gracula tristis, var. A., *Lath., Hist. of Birds,* III. *p.* 149.

Jallak-awu, Java, *Horsfield.*

Javan Grackle, *Latham.*

The Black-winged Java Starling.

A. Java. (*P. tricolor*, Horsf.) From Dr. Horsfield's Collection.

## Subfam. V. PTILONORHYNCHINA.

Genus Calornis, *G. R. Gray, List of Gen. of Birds, p.* 53 (1841).

Lamprotornis, *part, Temminck.*

### 813. *CALORNIS CHALYBEUS, Horsfield Sp.*

Turdus chalybeus, *Horsf., Trans. Linn. Soc.* XIII. *p.* 148, ♂ (1820). *Lath., Hist. of Birds,* V. *p.* 90.

Lamprotornis chalybeus, *Eyton, P. Z. S.* (1839), *p.* 103.

Turdus strigatus, *Horsf., Trans. Linn. Soc.* XIII. *p.* 148, ♀. *Lath., Hist. of Birds,* V. *p.* 90.

Lanius insidiator, *Raffles, Trans. Linn. Soc.* XIII. *p.* 307, ♂.

Lamprotornis insidiator, *Cabanis, Cat. B. Mus. Heine, p.* 201.

Calornis panayensis, *apud G. R. Gray, Gen. of Birds,* II. *p.* 327.

Lamprotornis cantor, *apud Temm., Pl. Col.* 149. *Bonap., C. G. Av. p.* 416.

Calornis cantor, *apud Blyth, J. A. S. Beng.* XIII. *p.* 366; XIX. *p.* 225; *Cat. B. Mus. A. S. Beng. p.* 111.

? Turdus panayensis, *Scopoli* (*Sonnerat, Voy. Ind. t.* 73).

? Turdus cantor, *Gmel., S. N.* I. *p.* 837. *Lath., Hist. of Birds, p.* 63.

The Malayan Glossy Starling.

Sling, Java, *Horsfield.*

Biang, Kalaloyang, and Burong Kling, Sumatra, *Raffles.*

Terling, Malay, *Eyton.*

Parliong, Malay, *Blyth.*

A. B. *c. d.* ♂ ♀. (*T. chalybeus* et *strigatus*, Horsf.) From Dr. Horsfield's Collection.

*e. f. g. h.* ♂ ♀. Malacca. Presented by Dr. Cantor (1854).

*i. j.* ♂ ♀. Tenasserim. From Helfer's Collection.

*f.* Drawing. (*L. insidiator*, Raffles.) From Sir S. Raffles's Collection.

814. *CALORNIS AFFINIS*, *A. Hay.*

Calornis affinis, *A. Hay, J. A. S. Beng.* XV. *p.* 36. *Blyth, J. A. S. Beng.* XV. *pp.* 369, 375; XIX. *p.* 225; *Cat. B. Mus. A. S. Beng. p.* 111.

Lamprotornis affinis, *Bonap., C. G. Av. p.* 416.

The Affined Glossy Starling.

*a. b.* ♂. Nicobars. From the Asiatic Society of Bengal.

"This differs from the preceding in its larger size. Plumage of both species similar at all ages. Length of wing 4 to 4¼ in., tail 3 to 3¼ in., tarse ⅞ in., and bill about the same in both."—(Blyth.)

815. *CALORNIS DAURICUS*, *Pallas Sp.*

Sturnus Dauricus, *Pallas, Acta Stockh.* III. *p.* 198, *t.* 7, *f.* 1 (1778). *Gmel., S. N.* I. *p.* 806. *Lath., Hist. of Birds*, V. *p.* 10.

Calornis Dauricus, *Blyth, Cat. B. Mus. A. S. Beng. App. p.* xx.

Sturnia Daurica, *Blyth, Cat. B. Mus. A. S. Beng. p.* 111. *Cabanis, Cat. B. Mus. Heine, p.* 204.

Hetærornis Daurica, *Bonap., C. G. Av. p.* 418.

Pastor Dauricus, *G. R. Gray, Gen. of Birds*, II. *p.* 334.

Acridotheres Dauricus, *Strickl., Ann. Nat. Hist.* XII. *p.* 221.

Gracula sturnina, *Pallas, It.* III. *p.* 695. *Gmel., S. N.* I. *p.* 399.

Sturnus sturninus, *Daudin, Orn.* II. *p.* 322. *Lath., Hist. of Birds*, V. *p.* 11.

Pastor sturninus, *Wagler, Syst. Av. Past. sp.* 20.

Turdus dominicanus, *Gmel., S. N.* I. *p.* 836. *Lath. Hist. of Birds*, V. *p.* 62. (*Pl. Enl.* 627, *f.* 2.)

Pastor dominicanus, *Strickl., J. A. S. Beng.* XVI. *p.* 470.
Turdus striga, *Raffles*,* *Trans. Linn. Soc.* XIII. *p.* 311.
Pastor malayensis, *Eyton, P. Z. S.* (1839), *p.* 103.
Sturnia malayana, *Blyth, J. A. S. Beng.* XV. *p.* 35.
The Daurian Starling, *Latham.*
Brass Brass, Malay, *Eyton.*

A. B. ♂ ♀. ? China. Presented by J. Reeves, Esq.
*c. d.* ♂. Tenasserim. From Helfer's Collection.
*e. f. g. h.* ♂ ♀. Adult and young. Malacca. Presented by Dr. Cantor, 1854.

"Eyes black; legs greenish-brown. Sleeps with the body downwards, suspended by the claws. Common at Malacca."—(Dr. Cantor, MS. Note.)

Genus Saraglossa, *Hodgs., J. A. S. Beng.* (1844), *p.* 367; *Gray's Zool. Misc.* (1844), *p.* 84.

816. *SARAGLOSSA SPILOPTERA, Vigors Sp.*

Lamprotornis spilopterus, *Vigors, P. Z. S.* (1831), *p.* 35. *Gould, Cent. of Birds, t.* 34. *Hodgs., J. A. S. Beng.* V. *p.* 773. *McClell., P. Z. S.* (1839), *p.* 163.
Saraglossa spiloptera, *Hodgs., J. A. S. Beng.* XIII. *p.* 367; *Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nep. p.* 103. *Hutton, J. A. S. Beng.* XVII. *pt.* 2, *p.* 9. *G. R. Gray, Gen. of Birds*, II. *p.* 328. *Blyth, Cat. B. Mus. A. S. Beng. p.* 109. *Bonap., C. G. Av. p.* 418.
Puli, Masuri, *Hutton.*
The Spotted-winged Starling.

*a.* and Drawing, ♂. Assam. From McClelland's Collection.
*b. c.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.
*d.* ♂. Tenasserim. From Helfer's Collection.

"Tongue cartilaginous, flat, furnished with a full brush forwards. Habits monticolous and arboreal, feeding like *Chloropsis.*"—(Hodgson.)

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* *Nec.* Lanius striga, *Raffles, which is* Lalage orientalis.—*Vide* p. 175.

"This bird arrives in the hills about the middle of April, in small parties of five or six, but it does not appear to ascend above 5,500 to 6,000 feet, and is, therefore, more properly an inhabitant of the warm valleys. I do not remember observing it at Masuri, which is 6,500 to 7,000 feet, although at 5,200 feet, on the same range, it is abundant during summer. Its note and flight are very much like those of the *Sturnus vulgaris*, and it delights to take a short and rapid flight and return twittering to perch on the very summit of the forest-trees; I have never seen it on the ground, and its food appears to consist of berries. It nidificates in the holes of trees, lining the cavity with bits of leaves, cut by itself; the eggs are usually 3, or sometimes 4 or 5, of a delicate pale sea-green, speckled with blood-like stains, which sometimes tend to form a ring near the larger end; shape oval, somewhat tapering; diameter $1\frac{1}{16} \times \frac{11}{16}$ in." —(Captain Hutton.)

Genus PYRRHOCHEIRA, *Reichenbach* (1850).

AMYDRUS, *Cabanis, Cat. B. Mus. Heine, p.* 201 (1851).

NABOUROUPUS, *Bonaparte* (1853).

817. *PYRRHOCHEIRA RÜPPELLI, Verreaux Sp.*

Amydrus Rüppelli, *Verreaux, Comptes Rendus* (1851), *p.* . *Blyth, J. A. S. Beng.* XXIV. *p.* 300.

Lamprotornis Morio, *apud Rüpp., Syst. Uebers. p.* 75.

A. ♀. Abyssinia. From Harris's Collection.

Genus PILORHINUS, *Cabanis, Cat. B. Mus. Heine, p.* 201 (1851).

818. *PILORHINUS ALBIROSTRIS, Rüppell Sp.*

Ptilonorhynchus albirostris, *Rüpp., Faun. Abyss. Av. p.* 22, *t.* 9, *f.* 1, 2 (1835); *Syst. Uebers. p.* 75.

Pilorhinus albirostris, *Cabanis, Cat. B. Mus. Heine, p.* 201.

Juida albirostris, *G. R. Gray, Gen. of Birds,* II. *p.* 327.

A. ♂. Abyssinia. From Harris's Collection.

Genus LAMPROCOLIUS, *Sundevall, Vet. Acad. Handl.* (1835).

819. *LAMPROCOLIUS CYANIVENTRIS, Blyth.*

Lamprotornis cyaniventris, *Blyth, J. A. S. Beng.* XXIV. *p.* 255 (1855).

Lamprotornis nitens, *apud Rüpp., Syst. Uebers. p.* 75.

A. Abyssinia. From Harris's Collection.

"Differs from *L. nitens*, Linn., of S. Africa, in having a conspicuously shorter bill, and in various details of colouring. Upper parts glossy steel-green, uniform on the crown, nape, and back, but passing to bluish on the rump and upper tail-coverts, and also on the ear-coverts; throat and breast like the back; but the belly and thighs are brilliant steel-blue mixed with amethyst, as likewise the axillaries and under wing-coverts, which are very brilliant, the amethystine hue prevailing; shoulder of wing (under the scapularies) steel-blue, with no terminal amethystine bar, as in *L. nitens*, but a little of this colour showing at the bases of the feathers. In *L. cyaniventris* the wings are more uniformly glossed than in *L. nitens*, extending quite over the tertiaries and primaries; and the wing-coverts and tertiaries have their black terminal spots larger and rounder."—(Blyth.)

820. *LAMPROCOLIUS SUPERBUS*, *Rüppell Sp.*

Lamprotornis superba, *Rüpp., Syst. Uebers. p.* 65, *t.* 26.
*Blyth, J. A. S. Beng.* XXIV. *p.* 301.
Juida superba, *G. R. Gray, Gen. of Birds*, II. *p.* 327.
Lamprocolius superbus, *Bonap., C. G. Av. p.* 415.
Lhimber-load (*i. e.* Cow-bird), Somáli, *Lieut. Speke.*

A. Abyssinia. From Harris's Collection.

"This bird is found in large flocks in the Somáli country, and is fond of cows; whence its name. Irides white."—(Lieutenant Speke, 46th Bengal N.I.)

## Fam. III. CORVIDÆ, *Leach.*

### Subfam. I. PARADISEANA, *Vigors.*

Genus Paradisea, *Linn., S. N.* (1735).
Manucodiata, *Brisson, Orn.* (1760).
Samalia, *Vieillot.*

821. *PARADISEA RUBRA, Vieillot.*

Paradisea rubra, *Vieill., Ois. dor. t.* 3; *Gal. des Ois. t.* 99. *Le Vaill., Ois. de Parad. t.* 6. *G. R. Gray, Gen. of Birds,* II. *p.* 323, *t.* 79. *Blyth, J. A. S. Beng. p.* 106. *Bonap., C. G. Av. p.* 413. *Cabanis, Cat. B. Mus. Heine, p.* 214.

Paradisea sanguinea, *Shaw, Zool.* VII. *p.* 487, *t.* 59 (1809). *Raffles, Trans. Linn. Soc.* XIII. *p.* 312. *Lesson, Parad. t.* 78, ♂ ♀.

Paradisea coccinea, *F.* (*B.*) *Hamilton, MS.* III. *p.* 52.

The Red Paradise-bird, *Lath., Hist.* III. *p.* 186.

*a.* Drawing. From F. (B.) Hamilton's Collection.

"These splendid birds are peculiar to New Guinea. They are active and lively in their movements, and are usually observed on the tops of the high trees, though they descend in the morning and evening to the lower branches to search for their food and to hide among the foliage from the extreme heat of the sun. The fruits of the teak and of the fig form the principal part of their subsistence; and they occasionally feed on insects, of which, if large, they reject the legs, wings, and the lower parts of the abdomen. Their cry is loud and sonorous, and poured forth in a rapid succession of notes. The first four notes, says Mr. Lay, are very exactly intonated, very clear, and very sweet; the last three are repeated in a kind of caw, a very high refinement of the voices of a Daw or a Crow, yet possessing a striking resemblance."—(G. R. Gray, Gen. of Birds.)

### Subfam. II. FREGILINA.

Genus Fregilus, *Cuvier, Règ. Anim.* I. *p.* 406 (1817).
Coracia, *Brisson, Orn.* II. *p.* 3 (1760).
Graculus, *Koch, Baier. Zool.* I. *p.* 91 (1816).

822. *FREGILUS GRACULUS*, *Linn. Sp.*

Corvus graculus, *Linn. S. N.* I. *p.* 158. *Lath., Hist. of Birds*, III. *p.* 25. *Wagler, Syst. Av. sp.* 13. (*Pl. Enl. t.* 255.)

Fregilus graculus, *Cuvier, Règ. Anim.* (1817), I. *p.* 406. *Gould, Birds of Eur. t.* 219. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nepal, p.* 103. *Blyth, J. A. S. Beng.* XV. *p.* 25; *Cat. B. Mus. A. S. Beng. p.* 91. *Hutton, J. A. S. Beng.* XVI. *p.* 778. *Bonap., C. G. Av. p.* 388. *Cabanis, Cat. B. Mus. Heine, p.* 228.

Pyrrhocorax graculus, *Temm., Man. d'Orn. p.* 122.

Coracia gracula, *G. R. Gray, Gen. of Birds*, II. *p.* 321; *Cat. Brit. B. in Brit. Mus.* (1850), *p.* 96.

Corvus Eremita, *Gmel., S. N.* I. *p.* 377.

Coracia erythrorhamphus, *Vieill., Dict. d'Hist. Nat.* VIII. *p.* 2; *Enc. Méth. p.* 894; *Gal. des Ois.* I. *t.* 103.

Fregilus europæus, *Lesson, Tr. d'Orn. p.* 324.

Fregilus erythropus, *Swains., Classif. of B.* II. *p.* 268.

The Chough, *Yarrell.*

Tsagh, Candahar, *Hutton.*

*a. b.* Quettah. From Griffith's Collection.

*c. d.* Ladakh, *e. f.* Kumaon. Presented by Captain R. Strachey.

*g.* Nepal. Presented by B. H. Hodgson, Esq.

*h. i.* ♂ ♀. Bootan. From Pemberton's Collection.

"This is abundant at Candahar during the winter months, arriving in November from the hills to the northward, and departing again about March. At Giriskh, on the Helmund, they sometimes appear in hundreds about sunset, coming from the hills when the heats of day are past, and settling among the swampy beds along the river, where they procure abundance of mollusca."—(Captain Hutton.)

Genus Pyrrhocorax, *Vieill., Analyse, p.* 36 (1816).

823. *PYRRHOCORAX ALPINUS*, *Vieillot.*

Corvus Pyrrhocorax, *Linn., S. N.* I. *p.* 158. *Lath., Hist. of Birds*, III. *p.* 24. *Wagler, Syst. Av. sp.* 15. (*Pl. Enl.* 531.)

Pyrrhocorax alpinus, *Vieill., Analyse, p.* 36; *Gal. des Ois.*

*p.* 165, *t.* 104 (1825). *Koch, Baier. Zool. p.* 90. *Gould, Birds of Eur. t.* 218. *G. R. Gray, Gen. of Birds*, II. *p.* 320. *Blyth, J. A. S. Beng.* XV. *p.* 25; *Cat. B. Mus. A. S. Beng. p.* 90. *Bonap., C. G. Av. p.* 388. *Cabanis, Cat. B. Mus. Heine, p.* 227.

Pyrrhocorax Pyrrhocorax, *Temm., Man. d'Orn.* I. *p.* 121.

The Alpine Chocard, *Blyth.*

*a. b. c.* Kumaon. Presented by Captain R. Strachey.

"This is a well-known tenant of the bare Himalayan crags."—(Blyth.)

Subfam. III. CORVINA, *Vigors.*

Genus Pica, *Brisson, Orn.* II. *p.* 35 (1760).

Cleptes, *Gambel* (1847), *nec. Latr.* (1804).

824. *PICA CAUDATA, Ray.*

Corvus Pica, *Linn., S. N.* I. *p.* 157. *Lath., Hist. of Birds*, III. *p.* 31.

Pica caudata, *Ray.* (*Pl. Enl.* 488.) *Gould, Birds of Eur. t.* 216. *G. R. Gray, Gen. of Birds*, II. *p.* 314; *Cat. Brit. B. in Brit. Mus.* (1850), *p.* 92. *Blyth, J. A. S. Beng.* XV. *p.* 26; *Cat. B. Mus. A. S. Beng. p.* 91. *Bonap., C. G. Av. p.* 382.

Pica melanoleuca, *Vieill., Enc. Méth. Ornith. p.* 883. *Wagler, Syst. Av. sp.* 1.

Pica albiventer, *Vieill., Fauna Franc. p.* 119, *t.* 55, *f.* 1.

Pica europæa, *Cuvier.*

Cleptes Pica, *Cabanis, Cat. B. Mus. Heine, p.* 220. *G. R. Gray, List of Gen. of Birds* (1855), *p.* 64.

The Common Magpie, *Latham.*

*a.* England. Presented by P. L. Sclater, Esq.

825. *PICA BACTRIANA, Bonaparte.*

Pica bactriana, *Bonap., C. G. Av. p.* 383 (1850).

Pica caudata (*ex Afghanistan*), *Blyth, J. A. S. Beng.* XV. *p.* 26; *Cat. B. Mus. A. S. Beng. p.* 91. *Hutton, J. A. S. Beng.* XVI. *p.* 778.

The Afghan Magpie, *Hutton.*

Akha, Cabul, *Hutton.*

*a. b. c. d.* Cabul and Candahar. From Griffith's Collection.

*e. f. g.* Tibet. Presented by Captain R. Strachey.

*h.* Mesopotamia. Presented by Commander Jones.

"The Afghan Magpie is found all the year round, from Quettah to Giriskh, and is very common. They breed in March, and the young are fledged by the end of April. The nest is like that of the European bird, and all its manners are precisely the same."—(Captain Hutton.)

826. *PICA MEDIA, Blyth.*

Pica media, *Blyth, J. A. S. Beng.* XIII. *p.* 393 (1844); XV. *p.* 25; XVI. *p.* 778; *Cat. B. Mus. A. S. Beng. p.* 91; *App. p.* xix.

Pica sericea, *Gould, P. Z. S.* (1845), *p.* 2; *Ann. Nat. Hist.* XVI. *p.* 48. *Blyth, J. A. S. Beng.* XV. *p.* 26. *G. R. Gray, Gen. of Birds,* II. *p.* 314. *Bonap., C. G. Av. p.* 383.

Pica chinensis, *Schlegel.*

*a.* ♀. China. From Reeves's Collection.

827. *PICA BOTTANENSIS, Delessert.*

Pica bottanensis, *Deless., Rev. Zool.* (1840), *p.* 400; *Voy. dans l'Inde, pt.* 2, *p.* 30. *Blyth, J. A. S. Beng.* XII. *p.* 985; XV. *p.* 25; *Cat. B. Mus. A. S. Beng. p.* 91. *Bonap., C. G. Av. p.* 383. *G. R. Gray, Gen. of Birds,* II. *p.* 314.

Pica megaloptera, *Blyth, J. A. S. Beng.* XI. *p.* 193 (1842).

Pica tibetana, *Hodgs., Ann. Nat. Hist.* III. *n. s. p.* 203 (1849).

The Bootan Magpie.

A. *b. c. d.* ♂ ♀. Bootan. From Pemberton's Collection.

*e.* (*P. megaloptera*, Blyth). Bootan. From the Asiatic Society of Bengal.

*f.* (*P. tibetana*, Hodgs.). Tibet. Presented by B. H. Hodgson, Esq., 1848.

Genus Corvultur, *Lesson, Tr. d'Orn. p.* 327 (1831).

Archicorax, *Gloger* (1842).

828. *CORVULTUR CRASSIROSTRIS, Rüppell.*

Corvultur crassirostris, *Rüpp., Fauna Abyss. t.* 8 (1835); *Syst. Uebers. p.* 75. *Bonap., C. G. Av. p.* 387.

Archicorax crassirostris, *Cabanis, Cat. B. Mus. Heine, p.* 233.

Corvus cafer, *apud G. R. Gray, Gen. of Birds,* II. *p.* 315.

A. B. ♂ ♀. Abyssinia. From Sir W. Harris's Collection.

"This is a carrion Crow, and is found about Angollallah and Ankober in large troops, in meadows where cattle are feeding. Its voice and mode of walking resemble those of the 'common Crow.'" —(Roth's MS. Notes.)

Genus Corvus, *Linn., S. N.* (1735).

Corone, *Kaup, Naturl. Syst. der Eur. Thierw. p.* 99 (1829).

Frugilegus, *Lesson.*

Trypanocorax, *Kaup.*

829. *CORVUS CORAX, Linn.*

Corvus Corax, *Linn., S. N.* I. *p.* 155. (*Pl. Enl.* 495.) *Lath., Hist. of Birds,* III. *p.* 4. *Wagler, Syst. Av. sp.* 1. *Gould, Birds of Eur. t.* 220. *G. R. Gray, Gen. of Birds,* II. *p.* 315; *Cat. Brit. B. in Brit. Mus.* (1850), *p.* 93. *Hutton, J. A. S. Beng.* XVI. *p.* 778. *Blyth, J. A. S. Beng.* XV. *p.* 23; *Cat. B. Mus. A. S. Beng. p.* 89. *Bonap., C. G. Av. p.* 387. *Cabanis, Cat. B. Mus. Heine, p.* 233.

Corvus maximus, *Scopoli, Ann.* I. *p.* 34.

Corvus clericus, *Sparmann, Mus. Carls. t.* 2.

The Raven, *Bewick.*

Kargh, Candahar, *Hutton.*

*a. b.* Quettah. From Griffith's Collection.

C. Ferozepore. From Captain Hay.

"The Raven is very common in Afghanistan, and especially so during the winter."—(Captain Hutton.)

830. *CORVUS TIBETANUS, Hodgson.*

Corvus tibetanus, *Hodgs., Ann. Nat. Hist.* III. *n. s.* *p.* 203 (1849).

The Tibetan Raven.

*a.* Tibet. (No. 959, Hodgs. Cat.) Presented by B. H. Hodgson, Esq., 1853.

*b. c.* Ladakh. *d.* Kumaon. From Captain R. Strachey's Collection.

This is very nearly allied to *C. Corax*, but is somewhat larger in size; the wing measuring 18½ in., tail 11½ in., and the bill to gape 3 in.

831. *CORVUS CORONE, Linn.*

Corvus Corone, *Linn., S. N.* I. *p.* 155. (*Pl. Enl.* 483.) *Lath., Hist. of Birds*, III. *p.* 9. *Wagler, Syst. Av. sp.* 6. *Gould, Birds of Eur. t.* 221. *G. R. Gray, Gen. of Birds*, II. *p.* 315. *Blyth, Cat. B. Mus. A. S. Beng. p.* 89. *Bonap., C. G. Av. p.* 386. *Cabanis, Cat. B. Mus. Heine, p.* 230.

The Carrion Crow, *Bewick.*

*a.* England. Presented by J. Gould, Esq.

*b. c.* Pushut. From Griffith's Collection.

832. *CORVUS CORNIX, Linn.*

Corvus Cornix, *Linn., S. N.* I. *p.* 156. (*Pl. Enl.* 76.) *Lath., Hist. of Birds*, III. *p.* 15. *Wagler, Syst. Av. sp.* 7. *Gould, Birds of Eur. t.* 222. *Blyth, Cat. B. Mus. A. S. Beng. p.* 89. *Bonap., C. G. Av. p.* 386. *Cabanis, Cat. B. Mus. Heine, p.* 231.

The Hooded Crow, *Latham.*

Grab Abgaa (Arabic), Mesopotamia, *Jones.*

*a. b.* ♂ ♀. Mesopotamia. From Commander Jones.

*c.* Afghanistan. From Griffith's Collection.

833. *CORVUS CULMINATUS, Sykes.*

Corvus culminatus, *Sykes, P. Z. S.* (1832), *p.* 96. *G. R. Gray, Gen. of Birds*, II. *p.* 315. *Hodgs., Cat. Birds of Nep. p.* 102. *Blyth, J. A. S. Beng.* XV. *p.* 24; XVI. *p.* 727; XXIV. *p.* 479; *Ann. Nat.*

*Hist.* XX. *p.* 385; *Cat. B. Mus. A. S. Beng. p.* 89. *Hutton, J. A. S. Beng.* XVII. *pt.* 2, *p.* 9. *Bonap., C. G. Av. p.* 385. *Layard, Ann. Nat. Hist.* XIII. *n. s. p.* 213. *Burgess, P. Z. S.* (1854), *p.* 144.

Corvus orientalis, *Eversmann.*

Corvus Corone, var., *Franklin, P. Z. S.* (1831), *p.* 120.

Corvus Corax, *apud Raffles, Trans. Linn. Soc.* XIII. *p.* 300? *Royle, Himalaya, p.* 77.

Corvus Enca, *apud Sundevall, Physiogr. Sällsk. Tidsk. Ann. Nat. Hist.* XVIII. *p.* 306.

Corvus macrorhynchus, *apud Jerdon, Madr. Journ.* XI. *p.* 18. *Blyth, J. A. S. Beng.* XII. *p.* 95 (*nec. Blyth's Cat.*).

Corvus macrorhynchus, *v.* Corone, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 84.

? Corvus macrorhynchus, *Temm. Wagler, Syst. Av. sp.* 3 (1827).

The Indian Carrion Crow.

Raven of Europeans in India.

Dhar-kowa, Dheri-kowa, or Kurrial, Hind., *Jerdon. Blyth.*

Dand-kag, Bengal, *Blyth.*

Pahari-kowa, Deyra Doon, *Phillips. Blyth.*

Goyegamma-caca (*i. e.* 'High-caste Crow'), Ceylon, *Layard.*

Andang (*i. e.* 'Grave Crow'), Mal., *Layard.*

Burong-gaga-gaga, Malayan, *Blyth.*

*a.* (type). Dukhun. Presented by Colonel Sykes.

*b.* (*C. Corax*, Royle). N. India. From Dr. Royle's Collection.

*c. d.* Kumaon. From Captain R. Strachey's Collection.

*e. f.* Nepal. Presented by B. H. Hodgson, Esq.

*g.* Bootan. From Pemberton's Collection.

*h.* Tenasserim. From Helfer's Collection.

*i. j.* Adult and young. Pinang. Presented by Dr. Cantor, 1853.

"This species, though not so numerous as *C. splendens*, is yet very abundant in the peninsula of India, and nearly equally troublesome and impudent. It partakes more readily than the latter of carrion, and, I think, the King Crow (*Dicrurus macrocercus*) appears to pursue it with greater hatred than the common Crow; so it probably occasionally pilfers their eggs or young."—(Jerdon.)

"This is eminently a carrion Crow in its habits, and especially frequents the vicinity of the great rivers, being less confined than *C. splendens* to the immediate neighbourhood of human habitations."—(Blyth.)

M. Sundevall remarks, that he "never observed this species in flocks about Calcutta, but only singly, or paired in spring. The note consists of a tolerably clear, rough *krah, krah*, which is much hoarser and shorter than that of the European Crow, and more like the Rook's voice. The food consists of insects: in the stomach were found only larvæ and butterflies. I never observed it near corpses, which, however, were to be obtained everywhere."

"Occurs at Masuri throughout the year, and is very destructive to young fowls and pigeons. It breeds in May and June, and selects a tall tree, near a house or village, on which to build its nest, which is composed externally of dried sticks and twigs, and lined with grass and hair, which latter material it will pick from the back of horses and cows, or from skins of animals laid out to dry; I have had skins of the Surrów (*Capricornis bubalina*) nearly destroyed from their depredations. The eggs are three or four in number, and of a dull green, thickly spotted over with long, and sometimes confluent, spots, and dashes of dusky brown or blackish: diameter $1\frac{9}{16} \times 1$ in."—(Captain Hutton.)

"This Carrion Crow is everywhere common in Ceylon, being found inland as well as on the sea-coast. It is found in the deep forests where *C. splendens* never appears; and such is its acuteness of sight and scent, that though the wounded deer may retire to the most tangled brake to die, its covert is invariably revealed to the hunter by these crows, who, congregating in small parties on the surrounding trees, patiently wait till life is extinct to begin their repast, in company with the jackals and wild hogs.

As soon as the Carrion Crow detects an animal lying on the ground, it utters a curious soft modulated 'caw,' wheeling in circles round the object of its curiosity, beating the air with heavy strokes, and then, joining the wings over the back, it sails down, and alights within a few feet of its hoped-for prey. These motions are known

and understood by all the crows in the vicinity, who immediately flock to the expected banquet. One, bolder than the rest, now approaches, and hops upon the animal's body; as this is not an unusual practice with them whilst searching for ticks, the animal lies still till the crow peers into its eyes, when, should it be in a state to defend itself, a shake of the head rids it of its dangerous friend, who then, instead of feasting on its eyeballs, performs the grateful office of ridding it of its vermin. Far different, however, is the fate of the wretched animal dying of disease or of the deadly rifle-ball; full well the Carrion Crow knows the dim eye over which the shadows of death are stealing, and, like the wretches who rob the dying on the field of battle, he hastens its last moments. Plunging its powerful bill into the eyeball of his victim, it tugs at it, despite the feeble struggles which oppose it, and is soon joined by its now bolder companions, some pecking at the eyes, some at the fatal wound or sore; but all select those points where the thinness of the skin, or an abrasion in it, offers an easy access to the entrails; these, once reached, are torn out and swallowed, but the eye is invariably the first point of attack.

About the villages the Carrion Crow builds its nest in the cocoa-nut trees; in the jungles it selects a tall tree, amid the upper branches of which it fixes a framework of sticks, and on this constructs a nest of twigs and grasses. The eggs, from three to five, are usually of a dull greenish-brown colour, thickly mottled with brown, these markings being most prevalent at the small end. Axis $1\frac{1}{2}$ in., diam. $1\frac{1}{4}$ in. They are usually laid in January and February."—(Layard.)

### 834. *CORVUS SINENSIS, Gould, MS.*

*a.* ♂. Shanghai. Presented by J. Gould, Esq., 1856.

*C. sinensis, n. sp.*—This is a species intermediate between *C. Corax* and *C. Corone:* it is longer in all its admeasurements than the *C. culminatus;* the bill is stronger and higher at the base, and less prolonged; in colour, particularly about the head and shoulders, it is more silky, and of a browner hue, or less steely black. Its nearest ally is the *C. culminatus;* but it appears to be really distinct.

Length of male 20 in., of wing $13\frac{3}{4}$ in., tail 9 in., bill to gape $2\frac{5}{8}$ in., and tarsus $2\frac{5}{8}$ in. Female somewhat smaller.

Specimens of both sexes are in the Collection of J. Gould, Esq., from the neighbourhood of Canton and Shanghai.

835. *CORVUS PECTORALIS, Gould.*

Corvus pectoralis, *Gould, P. Z. S.* (1836), *p.* 18. *Bonap., C. G. Av. p.* 386.

Corvus dominicanus, *Bonap., Mus. Lugd. in Litt.*

Corvus dauricus, *apud G. R. Gray, Gen. of Birds*, II. *p.* 315.

*a.* (jun.) China. Presented by J. Gould, Esq., 1856.

Length of adult 17 in., of wing 11½ in., tail 7½ in., bill to gape 2¼ in., and tarse 2¼ in.

836. *CORVUS AFFINIS, Rüppell.*

Corvus affinis, *Rüppell, Fauna Abyss. t.* 10, *f.* 2; *Syst. Uebers. p.* 75. *G. R. Gray, Gen. of B.* II. *p.* 315. *Bonap., C. G. Av. p.* 385. *Blyth, J. A. S. Beng.* XXIV. *p.* 300.

Tukka, Somáli, *Lieut. Speke.*

A. B. *c.* ♂ ♀. Abyssinia. From Harris's Collection.

837. *CORVUS CAPENSIS, Lichtenstein.*

Corvus capensis, *Lichtenstein, Verz. Doubl. Berl. Mus. p.* 20 (1823). *Rüppell, Fauna Abyss. t.* 10, *f.* 3; *Syst. Uebers. p.* 75. *G. R. Gray, Gen. of B.* II. *p.* 315. *Bonap., C. G. Av. p.* 385. *Cabanis, Catal. B. Mus. Heine, p.* 230. (*Le Vaill., Ois. d'Afr.* II. *t.* 52.)

Corvus macropterus, *Wagler, Syst. Av. sp.* 10 (1827).

Corvus segetum, *Temminck, Text. de Pl. Col.*

Corvus Levaillantii, *Lesson, Tr. d'Orn. p.* 328 (1831).

A. ♀. Abyssinia. From Sir W. Harris's Collection.

838. *CORVUS FRUGILEGUS, Linn.*

Corvus frugilegus, *Linn., S. N.* I. *p.* 156. (*Pl. Enl.* 484.) *Latham, Hist. of B.* III. *p.* 11. *Wagler, Syst. Av. sp.* 9. *Gould, B. of Eur. t.* 224. *G. R. Gray, Gen. of B.* II. *p.* 315; *Catal. Brit. B. Brit. Mus.* (1850), *p.* 93. *Hutton, J. A. S. Beng.* XVI. *p.* 778. *Blyth, Catal. B. Mus. A. S. Beng. p.* 90. *Bonap., C. G. Av. p.* 384. *Cabanis, Catal. B. Mus. Heine, p.* 230.

The Rook, *Bewick.*

*a*. England. Presented by J. Gould, Esq.

*b. c.* ♂ ♀. Mesopotamia. From Commander Jones.

*d. e.* Pushut. From Griffith's Collection.

"Found in large flocks at Candahar during winter, searching for food in the ploughed fields. They arrive in February, which is there the coldest month, and depart in March."—(Captain Hutton.)

839. *CORVUS PASTINATOR, Gould.*

Corvus pastinator, *Gould, P. Z. S.* (1845), *p.* 1. *Blyth, J. A. S. Beng.* XV. *p.* 25. *G. R. Gray, Gen. of B.* II. *p.* 315. *Bonap., C. G. Av. p.* 384.

Corvus frugilegus, *apud Schlegel, Fauna Japon. p.* 80.

*a*. Japan. Presented by John Gould, Esq., 1856.

"*Corvus pastinator* is closely allied to the Rook of Europe, but differs from it in the hue of the plumage, which is of a beautiful purple, or plum-colour, where the European bird is green; the bill is also straighter, and the face much less denuded, the fleshy base of the nostrils being the only part destitute of feathers; the feet and claws are also larger."

The Japanese 'Rook' is identical with the Chinese bird named as above by Mr. Gould, and with whose typical specimen it has been carefully compared.

840. *CORVUS TENUIROSTRIS, Moore.*

*a*. Bombay. From Major Kittoe's Collection.

*C. tenuirostris, n. sp.*—Plumage above glossy purply-black, palest on the head, neck, back, and body beneath, and these having an ashy cast; forehead jet-black, and contrasting with the ashy cast of plumage of the crown.

Length 18 in., of wing $12\frac{1}{2}$ in., tail 7 in., bill to frontal plumes $2\frac{1}{8}$ in., to gape $2\frac{8}{10}$ in.; height from chin to forehead $\frac{8}{10}$ in., and tarsus $2\frac{1}{4}$ in.

841. *CORVUS ENCA, Horsfield Sp.*

Fregilus Enca, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 164 (1821). *Latham, Hist. of B.* III. *p.* 13.

Corvus Enca, *Vigors, Mem. Raffles, p.* 665. *Bonap., C. G. Av. p.* 385. *Cabanis, Catal. B. Mus. Heine, p.* 231.

? Corvus Enca, *Wagler, Syst. Av. sp.* 11.

? Corvus macrorhynchus, *Vieillot, apud Blyth, Catal. B. Mus. A. S. Beng. p.* 90.

Enca Crow, *Latham.*

Enca, Java, *Horsfield.*

A. *b.* Java. From Dr. Horsfield's Collection.

Length about 14 in., of wing 11 in., tail 6 in., bill to frontal plumes 2 in., to gape $2\frac{3}{8}$ in., width at gape $\frac{3}{4}$ in., and tarse $1\frac{3}{4}$ in.

The bill in this species differs only from that of *C. splendens* in being somewhat longer and rather more rounded.

842. *CORVUS SPLENDENS, Vieillot.*

Corvus splendens, *Vieillot, Dict. d'Hist. Nat.* VIII. *p.* 44; *Enc. Méth.* (1823), *p.* 882. *Temm., Pl. Col.* 425. *Wagler, Syst. Av. sp.* 18. *Sykes, P. Z. S.* (1832), *p.* 96. *Sundevall, Physiogr. Sällsk. Tidsk.* (1837), *p.* ; *Ann. Nat. Hist.* XVIII. *p.* 305. *Jerdon, Madras Journ.* XI. *p.* 18. *Blyth, J. A. S. Beng.* X. *p.* 921; XV. *p.* 24; XXIV. *p.* 479; *Ann. Nat. Hist.* XII. *p.* 95. *Jardine's Contr. Orn.* (1850), *p.* 69; *Catal. B. Mus. A. S. Beng. p.* 90. *G. R. Gray, Gen. of B.* II. *p.* 315. *Hodgson, Catal. B. of Nepal, p.* 102. *Tickell, J. A. S. Beng.* XVII. *p.* 302. *Bonap., C. G. Av. p.* 384. *Layard, Ann. Nat. Hist.* XIII. *n. s. p.* 214. *Tytler, Ann. Nat. Hist.* XIII. *n. s. p.* 368. *Burgess, P. Z. S.* (1854), *p.* 143.

Corvus impudiens, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 84.

Corvus dauricus, *apud Pearson, J. A. S. Beng.* X. *p.* 652.

Corvus Monedula indica, *F.* (*B.*) *Hamilton MS.* II. *p.* 129 (1808).

The Common Indian Crow, *Blyth. Jerdon.*

The Indian Hooded-Crow.

Kowa, or Pati-kowa (*i. e.* 'Common Crow'), Hind., *Jerdon. Blyth.*

Kag, or Kak, Beng., *F.* (*B.*) *Hamilton. Blyth.*

Dasi Kowa, Deyra Doon, *Blyth. Royle.*

Caravy-caca, Ceylon, *Layard.*

Cagum, Mal., *Layard.*

A. *b.* Dukhun. Presented by Colonel Sykes.
*c.* Himalaya. From Dr. Royle's Collection.
*d. e.* Kumaon. Presented by Captain R. Strachey.
*f.* Melanoid var. Tenasserim. From Helfer's Collection.

"This is the common Crow of India, and is an abundant, very noisy, familiar, and impudent species, frequenting the vicinity of human abodes, alike in the villages and in the crowded streets of large towns. About the latter, they walk and hop like domestic birds, wherever food is to be picked up, just stepping aside out of the way of the passers-by, and regardless of the ordinary throng; but they still retain all the craft and wariness of their tribe, and are ever vigilant, making off on the least suspicious movement, or even on the fixed glance of a stranger: they require but small encouragement, however, to be most troublesomely bold, and do not always wait for such encouragement, peeping into dwelling-rooms, cawing loudly the while, passing through them by different windows, and, if opportunity offers, making free with anything that attracts them by the way. Though highly social, this Crow is not properly gregarious, like the Rook and Jackdaw of England, and does not build in society, resembling the *C. Corone* in this respect, though, from its commonness, two or three pairs may sometimes resort to the same large tree. Their noise, from the multitude of them, is incessant, and if anything (as the sight of a dead Crow) excite them, is most uproarious and annoying; they are about too, from the earliest dawn till late in the evening, and are far from being quiet on moonlight nights. Eager, busy, and bustling, their flight is always singularly hurried, as if time were a matter of some consequence to them; and, in short, every trait of the Crow tribe is prominently developed in this species. The report of a gun excites a grand commotion among the community of Crows; they circle and cross rapidly to and fro overhead, for the most part out of range, cawing lustily, and dodging when the gun is pointed at them, while others sit observantly on the neighbouring house-tops, &c., all launching on the wing on the next discharge, with clamorous outcry, and then, by degrees, returning to their place of observation. Thus, too, they persecute the gunner when in quest of other birds, spreading the alarm in all directions; and I remember once, when loading beside a large tank, a pair of the fine Caspian Tern came and dashed by two or three times within range; but just as I was ready for them, a wild Crow made his appearance and attacked one of them, being soon joined by others of

his fraternity, who speedily drove away the pair of Terns, without affording me the wished-for chance of a shot. Again, I have seen a Crow of this species pounce on a pied harrier (*Circus melanoleucos*), which was standing quietly on the bank of a rivulet, and continue to attack and follow it till both were out of sight. On one occasion, I remarked a number of Crows and Mynahs (*Pastor tristis*) collected around some horse-droppings on a road, when one of the Crows pertinaciously prevented a particular individual Mynah from partaking with the rest of the party: again and again did the poor Mynah make the attempt, stepping round and approaching from different directions, but all to no purpose; the Crow, meanwhile, paying no attention to the other Mynahs of the same species, which were engaged in picking out the grains. But the most remarkable fact I have observed of this Crow was during a short sojourn at Madras, where a party of about twenty were in the daily habit of attending the breakfast of the friend at whose house I was staying, without, however, being allowed to enter the room. Among these were two blind, or rather purblind, Crows, which could just see their way about, without, apparently, being able to pick up small articles of food; and these were regularly fed by the rest, first one and then another of which they followed with imploring demeanour and quivering wings, like a nestling, and received the morsels with the same gobbling note of gratulation: they were evidently old birds, and perhaps aged."—(Blyth.)

"The sagacity and vigilance of this predatory bird are too well known to require much in illustration of its habits; but I have," remarks the Rev. T. Phillips, in his MS. Notes, "too often myself been amused by witnessing the tricks, to think some short account of the manner in which this exceedingly cunning bird is caught by the natives, would not prove uninteresting. To any one conversant with the customs of this country [India], I need not say that Crows, as well as several other kinds of birds, are in great request at large cities for 'Sudga,' or 'Ootarus,' (Ransoms) for the sick. Hence the necessity with birdcatchers of having a constant and well-regulated supply on hand; and as a Crow can seldom be tricked twice in the same manner, the birdcatchers have recourse to various methods of entrapping him. One of them is this: feeding Crows on certain occasions forms part of a religious ceremony with the Hindoos, and this share of the business is generally taken up by the women, with whom, accordingly, Crows become very familiar, nay, sometimes so bold as to take the food from their hands. Taking advantage of this fami-

liarity with the women of the country, I have frequently seen a birdcatcher attire himself in the garb of a Hindoo female, and, closely veiling his face and beard with the 'Chadir,' issue forth with a 'Thaler' loaded with sweet rice in his hand to invite Crows to a (supposed) feast! This invitation consists of throwing a few grains of rice to every crow met on the way, and thus a flock is soon collected round the supposed woman, when the birdcatcher proceeds to his net, still throwing out a few grains of rice now and then to the crows, who now follow him close. Reaching his net, which must be set by night and carefully concealed under dust and sand, otherwise the whole plan would fail, he heaps the rice on a spot surrounded by the hidden net, walks to the end of a string attached to the net, and as all the Crows are now busy at devouring the feast, he suddenly draws the net over his victims. I need hardly remark that in the manner of laying the net, and in concealing his person, the birdcatcher must be exceedingly cautious; for should the least suspicion be created by any discovery, the farce would be at an end. The very arms and feet of the man must be concealed, and the sight of a beard would most certainly send all the crows flying in a moment."

The Coël (*Eudynamys orientalis*) invariably deposits its eggs in the nest of these Crows.

Further notes on the habits of this Crow are given by Colonel Sykes, Sundevall, Jerdon, Tickell, Burgess, and Layard, in the works above referred to.

Genus Coloeus, *Kaup, Naturl. Syst. p.* 114 (1829).
Monedula, *Brehm, Isis, p.* 1273 (1828).
Lycos, *Boie, Isis, p.* 358 (1828).

843. *COLOEUS MONEDULA, Linn. Sp.*

Corvus Monedula, *Linn., S. N.* I. *p.* 156. (*Pl. Enl.* 523.) *Latham, Hist. of B.* III. *p.* 18. *Wagler, Syst. Av. sp.* 16. *Gould, B. of Eur. t.* 223. *G. R. Gray, Gen. of B.* II. *p.* 315; *Catal. Brit. B. in Brit. Mus.* (1850), *p.* 94. *Blyth, Catal. B. Mus. A. S. Beng. p.* 90.

Coloeus Monedula, *Kaup, Naturl. Syst. der Eur. Thierw. p.* 114.

Monedula turrium, *Brehm, Vœg. Deutschl. p.* 172. *Cabanis, Catal. B. Mus. Heine, p.* 230.

Lycos Monedula, *Boie, Isis* (1828), *p.* 1273. *Bonap., C. G. Av. p.* 384.

Corvus collaris, *Drummond, MS. List of B. of Corfu, in Bibl. J. Gould.*

The Jackdaw, *Bewick.*

*a.* England. Presented by P. L. Sclater, Esq.

*b. c.* ♂ ♀. Mesopotamia. From Commander Jones.

*c. d. e.* Cabul. From Griffith's Collection.

"Inhabits the valley of Cashmere generally; builds its nest in holes of rocks, beneath roofs, and in tall trees; lays four, five, or six eggs, of a pale clear bluish-green, dotted and spotted with brownish-black. May 1st."—(W. Theobald, Jun., Esq., J. A. S. Beng. (1854), p. 601.)

844. *COLOEUS DAURICA, Pallas Sp.*

Corvus dauricus, *Pallas, It.* III. *p.* 694. *Gmel., S. N.* I. *p.* 367. *Lath., Syn.* I. *p.* 367, *t.* 15; *Gen. Hist. of B.* III. *p.* 17. *G. R. Gray, Gen. of B.* II. *p.* 315, *t.* 76. *Schlegel, Fauna Japon. p.* 80, *t.* 41.

Lycos dauricus, *Bonap., C. G. Av. p.* 384.

Corvus capitalis, *Wagler, Syst. Av. sp.* 19 (1827).

Corvus morio, *Forster.*

Pallas's Jackdaw.

*a.* Shanghai. Presented by J. Gould, Esq., 1856.

Genus NUCIFRAGA, *Brisson, Orn.* (1760).

CARYOCATACTES, *Rafinq.* (1815).

845. *NUCIFRAGA HEMISPILA, Vigors.*

Nucifraga hemispila, *Vigors, P. Z. S.* (1830), *p.* 8. *Gould, Cent. of Birds, t.* 36. *Hodgson, Gray's Zool. Misc.* (1844), *p.* 84; *Catal. B. of Nepal, p.* 102. *G. R. Gray, Gen. of Birds,* II. *p.* 313. *Blyth, J. A. S. Beng.* XV. *p.* 25; *Catal. B. Mus. A. S. Beng. p.* 90. *Bonap., C. G. Av. p.* 383. *Cabanis, Catal. B. Mus. Heine, p.* 229.

The Himalayan Nutcracker, *Gray.*

A. *b.* ♂ ♀. Bootan. From Pemberton's Collection.

*c. d.* ♂. Nepal. Presented by B. H. Hodgson, Esq.

## Subfam. IV. GLAUCOPINA.

Genus Platysmurus, *Reichenbach, Syst. Av.* (1850).

Glenargus, *Cabanis, Catal. B. Mus. Heine, p.* 216 (1851).

846. *PLATYSMURUS LEUCOPTERUS, Temminck Sp.*

Glaucopis leucopterus, *Temminck, Pl. Col.* 265.

Platysmurus leucopterus, *Reichenbach, Syst. Av.*

Cryptorhina leucoptera, *Wagler, Syst. Av. sp.* 4.

Temnurus leucopterus, *Lesson, Tr. d'Orn. p.* 341. *G. R. Gray, Gen. of Birds,* II. *p.* 310.

Crypsirhina leucoptera, *Blyth, J. A. S. Beng.* XII. *p.* 933. *Bonap., C. G. Av. p.* 369.

Glenargus leucopterus, *Cabanis, Catal. B. Mus. Heine, p.* 216.

Talong-gaga, or Kolong-gaga, Malayan, *Blyth.*

*a. b.* Malacca. From Griffith's Collection.

*c. d.* Malacca. Presented by Dr. Cantor (1854).

Genus Crypsirhina, *Vieillot, Analyse, p.* 36 (1816).

Temia, *Cuvier* (1817).

Phrenotrix, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 165 (1820).

847. *CRYPSIRHINA VARIANS, Latham Sp.*

Corvus varians, *Latham, Ind. Orn. Supp. p.* 26 (1790); *Gen. Hist. of Birds,* III. *p.* 34. (*Le Vaillant, Ois. d'Afr. t.* 56.)

Crypsirhina varians, *Vieillot, Analyse, p.* 36; *Gal. des Ois. t.* 106. *Vigors, Mem. Raffles, p.* 665. *G. R. Gray, Gen. of Birds,* II. *p.* 310. *Blyth, J. A. S. Beng.* XII. *p.* 933; XVI. *p.* 469; XVII. *p.* 249; *Catal. B. Mus. A. S. Beng. p.* 92. *Bonap., C. G. Av. p.* 369. *Cabanis, Catal. B. Mus. Heine, p.* 216.

Glaucopis varians, *Temminck, Text. de Pl. Col.*

Cryptorhina varians, *Wagler, Syst. Av. sp.* 6.

Corvus Temia, *Daudin, Orn.* II. *p.* 244 (1800). *Shaw, Zool.* VII. *p.* 372 (1809).

Corvus caudatus, *Shaw, Nat. Misc. t.* 561.

Phrenotrix Temia, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 163 (1820); *Zool. Res. in Java, t.* 50.

Temia Levaillanti, *Lesson, Tr. d'Orn. p.* 342.

Chekatut, or Benteot, Java, *Horsfield.*

A. *b.* Java. From Dr. Horsfield's Collection.

C. Sumatra. From Raffles's Collection.

*d.* Drawing. Siam. From Finlayson's Collection.

"Although this is not a rare bird in Java, it is by no means familiar, and never approaches the villages and habitations. It is only observed near solitary hamlets situated in tracts recently cleared for cultivation, where its food is abundantly supplied by the insects contained in the rich mould, and by the wild fruit about the skirts. In consequence of the shortness of the wings, its motions are slow. It is chiefly seen about noon, sailing heavily through the air in a right line towards the trees surrounding the openings in the forest. The strength of the bill and of the claws shows its adaptation to feed both on fruits and insects."—(Horsfield, Zool. Res. in Java.)

"This species is very remarkable (among birds of the great passerine type of structure) for having but ten tail-feathers, like the Drongos; and it is a curious fact, at first sight, the tail even resembles that of a Drongo, in its expansion and exterior curl upward at tip; but there is this essential difference, that the tail of *Cr. varians*, instead of being forked, is, in the opposite way, extremely graduated, and the expansion and curvature is accordingly exhibited by the two middle tail-feathers, instead of the outermost, as in the Drongos."—(Blyth.)

This bird appears to be of common occurrence in the Tenasserim provinces.

"Common in the neighbourhood of Moulmein."—(Rev. F. Mason, Natural Productions of Burmah, p. 271.)

Genus Dendrocitta, *Gould, P. Z. S.* (1833), *p.* 57.

848. *DENDROCITTA RUFA, Scopoli Sp.*

Corvus rufus, *Scopoli* (1786). *Lath., Ind. Orn.* I. *p.* 161; *Gen. Hist. of B.* III. *p.* 29. (*Sonn., Voy. Ind.* II. *p.* 186, *t.* 106. *Le Vaill., Ois. d'Afr. t.* 59.)

Dendrocitta rufa, *Hartl., Syst. Verz.* (1844), *p.* 63. *Hodgson, Catal. B. of Nepal, p.* 101. *Blyth, J. A. S. Beng.* XVI. *p.* 469; *Ann. N. H.* XX. *p.* 383;

*Catal. B. Mus. A. S. Beng. p.* 92. *Bonap., C. G. Av. p.* 369. *Cabanis, Catal. B. Mus. Heine, p.* 216. *Tytler, Ann. N. H.* XIII. *n. s. p.* 368.

Pica rufa, *Sundevall, Physiogr. Sällsk. Tidsk.* (1837), *p.* ; *Ann. N. H.* XVIII. *p.* 168.

Crypsirhina rufa, *Blyth, J. A. S. Beng.* XV. *p.* 30.

Temnurus rufus, *G. R. Gray, Gen. of B.* II. *p.* 310.

Coracias vagabunda, *Lath., Ind. Orn.* I. *p.* 171.

Pica vagabunda, *Vieill., Enc. Méth.* (1823), *p.* 888. *Wagler, Syst. Av. sp.* 5. *Gould, Cent. of Birds, t.* 42. *J. E. Gray, Ill. Ind. Zool.* I. *t.* 25. *Pearson, J. A. S. Beng.* X. *p.* 650.

Dendrocitta vagabunda, *Gould, P. Z. S.* (1833), *p.* 57; *Trans. Linn. Soc.* XIII. *p.* 89. *McClell., P. Z. S.* (1839), *p.* 164.

Crypsirhina vagabunda, *Jerdon, Madras Journ.* XI. *p.* 19. *Blyth, J. A. S. Beng.* XII. *p.* 932; XIII. *p.* 389; *Ann. Nat. Hist.* XII. *p.* 96. *Hodgson, Gray's Zool. Misc.* (1844), *p.* 84.

Temnurus vagabundus, *G. R. Gray, Gen. of B.* II. *p.* 310.

Pica rufiventris, *Vieillot. Stephens, Shaw's Zool.* XIV. *p.* 73.

Corvus mendicantium, *F.* (*B.*) *Hamilton, MS.* I. *p.* 59; II. *p.* 130.

The Rufous Tree-Crow, *Gray.*

Maha Lat, Hind., *F.* (*B.*) *Hamilton. Jerdon.*

Takka-chor ('Rupee Thief'), Bengal, *Blyth.*

Handi-chacha ('Pan-Scraper,' imitative of cry), Bengal, *Blyth.*

Mahtab and Chand, Scinde, *Burnes.*

A. ♂. Assam. From McClelland's Collection.

*b.* ♂. China. From Reeves's Collection.

*c. d. e.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

*f. g.* ♂ ♀. Himalaya. From Griffith's Collection.

*h. i.* ♂. Kumaon. Presented by Captain R. Strachey.

*j.* Nestling. Presented by Captain R. C. Tytler.

*k.* Drawing. From F. (B.) Hamilton's Collection.

"Inhabits India generally, and is common in the vicinity of Calcutta."—(Blyth.)

"Common and stationary about Calcutta. It is mostly seen in trees, and is rather shy. Its common screaming notes are like those of the European Magpies; but instead of that feeble indistinct sound which they make in spring, and which is their only song, this bird sends forth clearer and stronger tones, which sound like *koolee-oh-koor*, and, at times, *hohlee-ho*. In the stomachs of those I examined were found only insects, chiefly grasshoppers."—(Sundevall.)

"The flight of this bird has the same jerk, and its motions the same bustling character, as the English Magpie. The egg is of a plain greyish-white. I have known this bird to enter a covered verandah of a house, and nip off half a dozen young geraniums; visit a cage of small birds, begin by stealing the grain, and end by killing and eating the birds, and repeating these visits daily till destroyed."—(C. W. Smith's Notes, J. A. S. Beng. X. p. 650.)

"Builds on large trees about Calcutta, more than one at a time being seldom seen. The Bengalese women imagine whenever they hear this bird calling, that it forebodes the approach of religious mendicants, who, by partaking of the fare prepared for the family, will *clear* the *pots* used in cooking; from which circumstance its native name is derived."—(F. (B.) Hamilton, MS.)

"The Maha Lat is a social, bold bird, and is found in all extensive groves and forests of Muttra. It has several curious notes. They are generally found in pairs; sometimes two or three pairs assemble on the same tree, and begin to talk and quarrel, with a very singular sound of two syllables, thus,—*kakak*, or *kekekek*, several times repeated in a guttural tone. It is not much unlike the sound of the Peacock, but not so loud. When not quarrelling, it has another note, more agreeable: perhaps this is a note of love? This, too, is a compound sound, and is generally uttered when there is only one pair on a tree. One of the birds utters the note, and the other responds with a low purring sound. To utter the full sound, the bird lifts up its body from the tree, or shoots it forward, without rising from its legs. It takes very short flights from tree to tree, and does not often alight on the ground."—(Rev. T. Phillips's MS. Notes.)

"This bird is generally spread through the South of India, but is only at all plentiful on the well-wooded western coast, where it is to be seen and heard in every lofty avenue. In the Carnatic, I have only seen it in the jungly district near Touremcourchy, and in the

table-land it is also rare, being met with only occasionally in jungly districts, or in the neighbourhood of well-wooded villages. It frequents the highest jungles occasionally, not in their densest portions, however. It is found single or in pairs; occasionally four or five being seen together. It lives, as far as I have ascertained, entirely on fruit of different kinds, and is very fond of the fruit of the Banian. It has a most peculiar cry, something like the metallic sound of the call of the Racket-tailed Drongo (*Dicrurus retifer*), but its usual call is a harsh rattling cry, like that of the European Magpie."—(Jerdon.)

849. *DENDROCITTA PALLIDA, Blyth, Sp.*

Crypsirhina pallida, *Blyth, J. A. S. Beng.* XV. *p.* 30 (1846).

Dendrocitta pallida, *Blyth, Catal. B. Mus. A. S. Beng. App. p.* 336.

*a.* ♀. Shikarpore. From Griffith's Collection.

"Plumage as in *D. rufa*, but altogether much paler; the back and scapularies isabelline, with a shade of dusky, but devoid of any decided rufous tinge; rump paler; the belly and lower tail-coverts pure isabelline, or buffy cream-colour. The hue of the lower parts approaches that of the young of *D. rufa*, but the much firmer structure of the plumage, indicative of maturity, at once distinguishes it from that species.

Length about 15 in., of which the middle tail-feathers measure 8¾ in., the outermost 4⅝ in., less; wing 5½ in., bill to gape nearly 1¼ in., and tarse 1⅛ in."—(Blyth.)

850. *DENDROCITTA SINENSIS, Latham Sp.*

Corvus sinensis, *Latham, Ind. Orn.* I. *p.* 161; *Gen. Hist. of B.* III. *p.* 52. (*Sonnerat, Voy. Ind.* II. *p.* 187.)

Dendrocitta sinensis, *Gould, P. Z. S.* (1837), *p.* 57; *Trans. Zool. Soc.* I. *p.* 89. *Hodgson, Catal. B. of Nepal, p.* 102. *Hutton, J. A. S. Beng.* XVII. *pt.* II. *p.* 682. *Blyth, Catal. B. Mus. A. S. Beng. p.* 92. *Bonap., C. G. Av. p.* 369. *Cabanis, Catal. B. Mus. Heine, p.* 217.

Pica sinensis, *J. E. Gray, Ill. Ind. Zool.* I. *t.* 26. *Gould, Cent. of Birds, t.* 43.

Crypsirhina sinensis, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 84. *Blyth, J. A. S. Beng.* XII. *p.* 932; XV. *p.* 30.

Temnurus sinensis, *G. R. Gray, Gen. of B.* II. *p.* 310.
The Macao Tree-Crow, *Gray.*
Kokiakak, Masuri, *Hutton.*

*a. b.* Adult and young. Nepal. Presented by B. H. Hodgson, Esq.
*c.* ♀. Darjeeling. From Pearson's Collection.
*e. f.* Kumaon. From Captain R. Strachey's Collection.
*g.* Bootan. From Pemberton's Collection.
*h.* Madras. From Wight's Collection.

"Occurs abundantly at Masuri, about 5,000 feet elevation, during summer, and more sparingly at greater elevations; in the winter it leaves the mountains for the Doon. It breeds in May, on the 27th of which month I took one nest with three eggs, and another with three young ones. The nest is like that of *Psilorhinus occipitalis*, being composed externally of twigs, and lined with finer materials, according to the situation: one nest, taken in a deep glen by the side of a stream, was lined with the long fibrous leaves of the '*mare's tail*,' which grew abundantly by the water's edge; another, taken much higher on the hill-side, and away from the water, was lined with tendrils and fine roots. The nest is placed rather low, generally about eight or ten feet from the ground, sometimes at the extremity of a horizontal branch, sometimes in the forks of young bushy oaks. The eggs somewhat resemble those of *Psil. occipitalis*, but are paler and less spotted, being of a dull greenish-ash, with brown blotches and spots somewhat thickly clustered at the larger end; diameter $1\frac{2}{16} \times \frac{13}{16}$ in.; shape ordinary."—(Hutton.)

Mr. Jerdon remarks, that "I think I observed this species in open jungle in the Segoor Pass of the Neilgherries, and I have seen specimens killed in the eastern range of the Ghauts of Southern India."

851. *DENDROCITTA FRONTALIS, McClelland.*

Dendrocitta frontalis, *McClelland, P. Z. S.* (1839), *p.* 163. *Blyth, J. A. S. Beng.* XII. *p.* 933; XV. *p.* 31. *Bonap., C. G. Av. p.* 369.
Temnurus frontalis, *G. R. Gray, Gen. of B.* II. *p.* 310, *t.* 75.
Crypsirhina altirostris, *Blyth, J. A. S. Beng.* XII. *p.* 932 (1843); XV. *p.* 30.
Dendrocitta altirostris, *Blyth, Catal. B. Mus. A. S. Beng. p.* 92. *Bonap., C. G. Av. p.* 369.

Temnurus altirostris, *G. R. Gray, Gen. of B.* II. *p.* 310. McClelland's Tree-Crow.

A. and Drawing (type). Assam. From McClelland's Collection.

B. *c.* Darjeeling. From Pearson's Collection.

*d. e. f.* Nepal (No. 925, Hodgs. Cat.). Presented by B. H. Hodgson, Esq., 1853.

852. *DENDROCITTA LEUCOGASTRA, Gould.*

Dendrocitta leucogastra, *Gould, P. Z. S.* (1833), *p.* 57; *Trans. Zool. Soc.* I. *p.* 89, *t.* 12. *Blyth, Cat. B. Mus. A. S. Beng. p.* 91. *Bonap., C. G. Av. p.* 369. *Cabanis, Catal. B. Mus. Heine, p.* 217.

Crypsirhina leucogastra, *Jerdon, Madras Journ.* XI. *p.* 19. *Blyth, J. A. S. Beng.* XII. *p.* 933; XV. *p.* 30.

Temnurus leucogaster, *G. R. Gray, Gen. of B.* II. *p.* 310.

The White-bellied Tree-Crow.

A. Madras. From Wight's Collection.

"This species frequents the densest portion of the jungles, and is extremely shy and wary, feeding on various fruit and berries. It has a somewhat similar call to *D. vagabunda.* I have observed it only in the jungles of Malabar and the Wynaad, where it is a rare bird. Irides blood-red."—(Jerdon.)

## Subfam. V. GARRULINA.

Genus Coracias, *Linn., S. N.* (1758).

Galgulus, *Brisson, Orn.* II. *p.* 63 (1760).

853. *CORACIAS GARRULA, Linn.*

Coracias garrula, *Linn., S. N.* I. *p.* 159. (*Pl. Enl.* 486.) *Latham, Hist. of B.* III. *p.* 70. *Gould, B. of Eur. t.* 60. *G. R. Gray, Gen. of B.* I. *p.* 62; *Cat. B. Brit. Mus.* (1848), *pt.* II. *p.* 33; *Cat. Brit. B. in Brit. Mus.* (1850), *p.* 40. *Blyth, Cat. B. Mus. A. S. Beng. p.* 51. *Bonap., C. G. Av. p.* 167.

Galgulus garrulus, *Vieill., Dict. d'Hist. Nat.* XXIX. *p.* 428.

Coracias germanicus *et* planiceps, *Brehm., Vœg. Deutschl.* I. *pp.* 158, 159.

The Garrulous Jay.

*a. b. c. d.* Adult and young. Candahar. From Griffith's Collection.

*e. f.* ♂ ♀. Mesopotamia. Presented by Commander Jones.

854. *CORACIAS ABYSSINICA, Gmelin.*

Coracias abyssinica, *Gmelin, S. N.* I. *p.* 379 (1788). *Cuvier, Règ. Anim.* (1817), I. *p.* 401. *Lath., Hist. of B.* III. *p.* 76. *Rüppell, Syst. Uebers. p.* 23. *Bonap., C. G. Av. p.* 167. *Strickland, P. Z. S.* (1850), *p.* 216. (*Pl. Enl.* 626. *Le Vaill., Ois. de Parad. t.* 25.)

Coracias caudata, *apud G. R. Gray, Gen. of B.* I. *p.* 62 ; *Cat. B. Brit. Mus.* (1848), *p.* 35.

The Abyssinian Jay.

A. *b.* Abyssinia. From Sir W. Harris's Collection.

855. *CORACIAS PILOSA, Latham.*

Coracias pilosa, *Lath., Ind. Orn. Supp.* XXVII. (1790) ; *Gen. Hist. of B.* III. *p.* 85. *G. R. Gray, List of B. Brit. Mus.* (1848), *pt.* II. *p.* 34. *Bonap., C. G. Av. p.* 167.

Galgulus pilosus, *Vieill., Dict. d'Hist. Nat.* XXIX. *p.* 430 ; *Enc. Méth. p.* 867.

Coracias crinita, *Shaw, Zool.* VII. *p.* 401 (1809).

Coracias nuchalis, *Swains., B. of W. Afr.* II. *p.* 110 (1837).

Coracias Levaillanti, *Temm.* (*Le Vaill. Ois. de Parad.* I. *tt.* 28, 29.) *Rüppell, Syst. Uebers. p.* 23.

The Hairy Roller, *Latham.*

A. Abyssinia. From Sir W. Harris's Collection.

856. *CORACIAS INDICA, Linn.*

Coracias indica, *Linn., S. N.* I. *p.* 159. (*Pl. Enl.* 285.) *Lath., Hist. of B.* III. *p.* 74. *Sykes, P. Z. S.* (1832), *p.* 96. *Sundevall, Physiogr. Sällsk. Tidsk.* (1837), *p.* ; *Ann. N. H.* XVIII. *p.* 401. *Jerdon,*

*Madras Journ.* XI. *p.* 229. *Pearson, J. A. S. Beng.* X. *p.* 651. *G. R. Gray, Gen. of B.* I. *p.* 62; *Cat. B. Brit. Mus.* (1848), *pt.* II. *p.* 33. *Hodgs., Cat. B. of Nep. p.* 55. *Blyth, Ann. N. H.* XII. *p.* 94; *J. A. S. Beng.* XIV. *p.* 191; XIX. *p.* 228; *Cat. B. Mus. A. S. Beng. p.* 51. *Bonap., C. G. Av. p.* 167. *Layard, Ann. N. H.* XII. *n. s. p.* 171.

Coracias bengalensis, *Linn., S. N.* I. *p.* 159. *Cuv., Règ. Anim.* (1817), I. *p.* 401. *Lath., Hist. of B.* III. *p.* 72. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 82. *Tickell, J. A. S. Beng.* XVII. *p.* 304. *F.* (*B.*) *Hamilton, MS.* II. *pp.* 124, 131.

Galgulus nævius, *Vieill., Dict. d'Hist. Nat.* XXIX. *p.* 431; *Encyc. Méth. p.* 868.

Coracias nævia, *Wagler, Syst. Av. sp.* 3.

Blue Jay, *Edwards's Birds, t.* 326.

The Indian Roller, *Latham.*

Nil-khant, Beng., *Hamilton. Sundevall. Jerdon.*

Sulzuk, Hind., *Jerdon.*

Tas (from its call), Mahratta, *Jerdon.*

Kowolowa, Ceylon, *Layard.*

Kotta Killy, Mal., Ceylon, *Layard.*

*a.* N. W. India. From Griffith's Collection.

*b.* Scinde. Presented by Dr. H. Gould, 1855.

*c.* Kumaon. Presented by Captain R. Strachey.

*d. e.* (true *indica*). Nepal. Presented by B. H. Hodgson, Esq.

*f.* Bengal. Presented by Dr. Falconer.

*g.* Drawing. From F. (B.) Hamilton's Collection.

"Common in the vicinity of Calcutta, but for the most part disappearing at the time of the rains. Its flight is buoyant, but sustained by constant flapping; and I have now and then seen one, or a pair, when seeming about to alight on a tree, make a rapid dive downward to near the ground, then re-ascend, and perform this manœuvre several times successively, as if in play. It sits very upright on its perch, with the body-feathers appressed, and those of the head and neck puffy. Its usual note is harsh, but in spring the male utters a very pleasing dissyllabic cry, repeated at intervals."—(Blyth.)

"The Indian Roller is of universal distribution throughout the country, as well in jungles as in the open country, there being few groves of trees near a village that do not harbour some. It generally takes its perch on the top or outermost branch of some lofty tree, and on spying an insect on the ground, which it can do at a very great distance,—40 or 50 yards,—it flies direct to the spot, and generally seizes it on the ground, and then returns to the same tree and perch. A favourite perch of this bird is a bowrie-pole, or some bare leafless tree, by which it can command a larger view. It occasionally seats itself on a low bush, or even on the ground. I have on several occasions seen one pursue an insect in the air for some distance. It flies in general with a slow but continued flapping of its wings, but it has the habit of occasionally making sudden darts in the air in all directions. Its food is chiefly large insects, such as grasshoppers and their larvæ, caterpillars, mole-crickets, and even mice."—(Jerdon.)

"Nest rather large, thin, scanty, of twigs and grasses within, loosely put together, on medium-sized trees, generally at summits, and near water. Eggs four or five, broad, but rather pointed at the ends, full deep Antwerp-blue. July."—(Captain Tickell.)

"This bird is afraid of man's approach, and is pugnacious, driving away the Crow without much effort: it is a very noisy, screaming bird. With the Hindoos it is esteemed sacred: they consider it propitious if seen on the day which concludes the Dussorah, or Durga Puja festivals, and discharge their matchlocks to put it on the wing. The Burmahs annually send parties to procure the feathers of this bird."—(C. W. Smith, J. A. S., X. p. 651.)

"This bird is considered by the Brahmins in some measure sacred, as the god Siva, when he was called *Nilkhant*, assumed its form; it is not, however, an object of worship, but is venerated on account of the deity having appeared in its shape. Before the Durga Puja, in September or October, the Hindoos of Calcutta who can afford it purchase one of these birds, and at the time when they throw the image of Durga into the river, they set the *Nil-khant* at liberty."—(F. Buchanan Hamilton.)

"Common and widely distributed in Ceylon, being very partial to the small clumps of trees scattered over the cultivated parts of the Jaffna peninsula: they are also very fond of sitting on the top of the well-whips in the fields. It breeds in hollow trees, laying four or five greenish eggs, profusely speckled with dark-brown spots. Axis 15 lines, diameter 11 lines."—(Layard.)

857. *CORACIAS AFFINIS, McClelland.*

Coracias affinis, *McClelland, P. Z. S.* (1839), *p.* 164. *G. R. Gray, Gen. of Birds,* I. *p.* 62, *t.* 21. *Blyth, J. A. S. Beng.* XIV. *p.* 190; XIX. *p.* 228; *Cat. B. Mus. A. S. Beng. p.* 51.

Coracias Katnas, *F.* (*B.*) *Hamilton, MS.* II. *p.* 123 (1808).

Katnas, Gualpara, *F.* (*B.*) *Hamilton.*

Nghet-kha, Arracan, *Capt. Abbott.*

A. B. (type). Assam. From McClelland's Collection.

*c.* ♀. Bootan. From Pemberton's Collection.

*d. e.* (true *affinis*). *f.* (with intermixture of *indica*). Nepal. Presented by B. H. Hodgson, Esq.

"The numerous specimens of Rollers from Assam, Arracan, and Tenasserim, which I have seen," says Mr. Blyth, "all pertain strictly to this species, having the upper parts greener than in *C. indica*, the neck and breast devoid of the reddish-brown colour proper to the latter species, being purplish-dusky varied with bright purple on the foreneck, and the entire under-surface of the wing, except near the tips of the primaries, is deep purple; but I have obtained several specimens in the vicinity of Calcutta, and some from Tipperah, which present every gradation of plumage from one to the other of these species, and also some in the pure *affinis* plumage; from which I infer, that where found together in the same locality, they not unfrequently interbreed, and tend to merge into a single blended race. It may be further remarked, that I have never seen an example of true *C. affinis* with the broad terminal purple band to the tail, which distinguishes the adult of *C. indica;* but I have seen this imperfectly developed in the mixed race, which latter has also commonly the forepart of the under-surface of the wing intermingled purple and verditer."

F. Buchanan Hamilton, in his MS., mentions, that "this bird is very common at Gualpara throughout the year; the natives considering it as distinct from the Nil-khant."

Genus Platylophus, *Swains., Classif. of B. p.* 263 (1837).

Lophocitta, *G. R. Gray, List of Gen. of B.* (1840).

858. *PLATYLOPHUS GALERICULATUS, Cuvier Sp.*

Corvus galericulatus, *Cuvier, Règ. An.* I. *p.* 399 (1817). (*Le Vaill., Ois. de Parad. t.* 42.)

Platylophus galericulatus, *Swains., Classif. of B. p.* 263.

Pica galericulata, *Wagler, Syst. Av. sp.* 22.

Lophocitta galericulata, *G. R. Gray, List of Gen. of B. p.* 50; *Gen. of B.* II. *p.* 305. *Blyth, J. A. S. Beng.* XIV. *p.* 571; *Catal. B. Mus. A. S. Beng. p.* 94. *Bonap., C. G. Av. p.* 374; *P. Z. S.* (1850), *p.* 79. *Cabanis, Cat. B. Mus. Heine, p.* 218.

Lanius scapulatus, *Lichtenstein, Verz. Doubl. Mus. Berl. p.* 49 (1823), ♂.

Lanius coronatus, *Raffles, Trans. Linn. Soc.* XIII. *p.* 306 (1822), ♀.

Vanga coronata, *Vigors, Mem. Raffles, p.* 658.

Lophocitta coronata, *Cabanis, Cat. B. Mus. Heine, p.* 219.

Vanga cristata, *Griffith's An. Kingd. p.* 486, *fig.* (1829), ♂.

Garrulus histrionicus, *Müller, Mus. Lugd. Bat.* ♀.

Lophocitta histrionica, *Bonap., C. G. Av. p.* 374; *P. Z. S.* (1850), *p.* 79.

Garrula rufula, *Temminck, Mus. Lugd. Bat.*

Lophocitta ardesiaca, *Cabanis, Cat. B. Mus. Heine, p.* 219. *Bonap., C. G. Av. p.* 374, ♂ (*young*).

Burong Jeri, Sumatra, *Raffles.*

A. B. ♂, ♀, and Drawing. Sumatra. From Sir S. Raffles's Collection.

*c. d. e. f. g. h.* ♂ ♀. Adult and young. Malacca. Presented by Dr. Cantor, 1854.

This bird appears to be common at Malacca.

Genus Cissa, *Boie, Isis, p.* (1826).

Corapica, *Lesson, Tr. d'Orn. p.* 352 (1831).

Ptilonorhynchus, *Lesson* (1828).

Kitta, *Temminck* (182–).

Chlorisoma, *Swains., Classif. of B. pp.* 25, 230 (1837).

Citta, *Wagler* (1830).

859. *CISSA SINENSIS, Brisson Sp.*

Galgulus sinensis, *Brisson, Orn.* II. *p.* 77, *t.* 6, *f.* 2 (1760). (*Pl. Enl.* 620.)

Cissa sinensis, *Blyth, J. A. S. Beng.* XIII. *p.* 934; XV.

*p.* 29; *Ann. N. H.* XX. *p.* 321. *G. R. Gray, Gen. of B.* II. *p.* 308. *Hodgson, Cat. B. of Nep. p.* 101.

Corvus sinensis, *Bodd., Tabl. des Pl. Enl. d'Auben.* (1783).

Coracias sinensis, *Gmelin, S. N.* I. *p.* 381 (1788). *Latham, Hist. of B.* III. *p.* 54.

Ptilonorhynchus sinensis, *Lesson.*

Corvus speciosus, *Shaw, Gen. Zool.* VII. *p.* 364 (1809).

Pica speciosa, *Wagler, Syst. Av. sp.* 30.

Kitta speciosa, *Bonap., C. G. Av. p.* 166.

Corvus venatorius, *F.* (*B.*) *Hamilton, MS.* I. *p.* 60 (1808).

Kitta venatoria, *J. E. Gray, Ill. Ind. Zool.* I. *t.* 2 (1832). *McClelland, P. Z. S.* (1839), *p.* 164. *Blyth, J. A. S. Beng.* XII. *p.* 938. *Bonap., C. G. Av. p.* 166.

Cissa venatoria, *Blyth, J. A. S. Beng.* XV. *p.* 29; *Cat. B. Mus. A. S. Beng. p.* 92.

Corapica bengalensis, *Lesson, Tr. d'Orn. p.* 352 (1831).

Hunting Crow, *Lath., Hist. of B.* III. *p.* 53.

Chinese Roller, *Latham.*

Sir Gang, Bengal, *F.* (*B.*) *Hamilton. Blyth.*

A. Bootan. From Pemberton's Collection.

*b. c. d.* Nepal. Presented by B. H. Hodgson, Esq.

*e.* Drawing. From F. (B.) Hamilton's Collection.

"Inhabits the hills of Tipperah and Sylhet. It is stated that it is instructed to hunt like a hawk to catch small birds. Besides a kind of chattering, like a Jay or Magpie, it has an agreeable note, and becomes very tame."—(F. Buchanan Hamilton, MS. I. p. 60.)

Mr. Blyth remarks: "I have had many of these birds alive, which combine in their manners the traits of the Jay and Shrike: they are very amusing birds, soon become tame and quite fearless, are very imitative, sing lustily a loud and screeching strain of their own with much gesticulation, and are highly carnivorous in their appetite. The Shrike-like habit, in confinement, of placing a bit of food in each interval betwixt the bars of their prison, is in no species more strongly exemplified than in this."

"This bird, when newly moulted, is of a lovely green, with the wings bright sanguine-red, and the bill and legs deep coral; but whether alive (wild, or in confinement), or mounted as a stuffed specimen and exposed to the light, the green soon changes to verdigris-blue, and the red of the wings to dull ashy."—(Blyth.)

Genus Urocissa, *Cabanis, Catal B. Mus. Heine, p.* 87 (1850).

Calocitta, *Bonaparte, C. G. Av. p.* 381; *P. Z. S.* (1850), *p.* 84 (*nec. Gray*, 1841).

860. *UROCISSA SINENSIS, Linn. Sp.*

Cuculus sinensis, *Linn., S. N.* I. *p.* 171. *Lath., Hist. of B.* III. *p.* 273.

Urocissa sinensis, *Cabanis, Cat. B. Mus. Heine, p.* 87.

Psilorhinus sinensis, *G. R. Gray, Gen. of B.* II. *p.* 308. *Hodgson, Cat. B. of Nepal, p.* 101. *Blyth, J. A. S. Beng.* XV. *p.* 27.

Calocitta sinensis, *Bonaparte, C. G. Av. p.* 381.

Corvus erythrorhynchus, *Gmel., S. N.* I. *p.* 372. *Shaw, Zool.* VII. *p.* 361. *Lath., Hist. of B.* III. *p.* 27. (*Pl. Enl.* 622. *Le Vaill., Ois. d'Afr. t.* 57.)

Pica erythrorhyncha, *Vigors, P. Z. S.* (1831), *p.* 173. *Gould, Cent. of B. t.* 41.

Cyanurus erythrorhynchus, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 84.

Coracias melanocephalus, *Latham, Ind. Orn.* I. *p.* 170; *Gen. Hist. of B.* III. *p.* 82. *Shaw, Zool.* VII. *p.* 397.

Psilorhinus occipitalis, *Blyth, J. A. S. Beng.* XV. *p.* 26 (1846); *Cat. B. Mus. A. S. Beng. p.* 93. *Hutton, J. A. S. Beng.* XVII. *pt.* II. *p.* 681.

Psilorhinus albicapillus, *Blyth, J. A. S. Beng.* XV. *p.* 28 (*young*).

Red-billed Jay, *Latham.*

Nil-khant, Masuri, *Hutton.*

*a.* China. From Reeves's Collection.

*b.* Himalaya. From Griffith's Collection.

*c. d.* Adult and young. Nepal. Presented by B. H. Hodgson, Esq.

*e.* Kumaon. Presented by Captain R. Strachey.

"This species occurs at Masuri throughout the year, collecting into small parties of four to six during winter. It breeds at an elevation of 5,000 feet, in May and June, making a loose nest of twigs externally, lined with roots. The nest is built on trees, sometimes high up, at others about 8 or 10 feet from the ground. The

eggs are from three to five, of a dull greenish ash-grey, blotched and speckled with brown dashes, confluent at the larger end. Diameter $1\frac{4}{16} \times \frac{13}{16}$ in.; the ends nearly equal in size. It is very terrene in its habits, feeding almost entirely on the ground." — (Captain Hutton.)

Mr. Shore mentions, that "a specimen of this bird which I kept in captivity, though it refused other food, it ferociously pounced upon living birds, presented to it by way of experiment, which it eagerly devoured. Seen among the foliage of the trees, it is an elegant and conspicuous object, flitting from bough to bough with long and flowing tail, and full of vivacity in every movement."— (Gould's Century.)

861. *UROCISSA FLAVIROSTRIS, Blyth Sp.*

Psilorhinus flavirostris, *Blyth, J. A. S. Beng.* XV. *p.* 28 (1846); *Cat. B. Mus. A. S. Beng. p.* 93.

Urocissa flavirostris, *Cabanis, Cat. B. Mus. Heine, p.* 87.

Calocitta flavirostris, *Bonaparte, C. G. Av. p.* 381.

*a. b.* ♂ ♀. Bootan. From Pemberton's Collection.

*c. d. e.* (No. 938, Hodgs. Cat.). Nepal. Presented by B. H. Hodgson, Esq., 1853.

*f.* Kumaon. Presented by Captain R. Strachey.

*U. flavirostris.*—"General plumage of a *much* duller colour than in the preceding; the bill of the recent specimen bright yellow, and the white of the occiput reduced to a narrowish *transverse* band, with a broad collar of black below it, surrounding the hind-neck, and never any white tips to the feathers immediately above it; legs and toes small and slender."—(Blyth.)

Genus GARRULUS, *Briss., Orn.* II. *p.* 46 (1760).

GLANDARIUS, *Koch, Baier. Zool.* I. *p.* 99 (1815).

CELALYCA, *Kaup* (1854).

862. *GARRULUS GLANDARIUS, Linn. Sp.*

Corvus glandarius, *Linn., S. N.* I. *p.* 157. (*Pl. Enl.* 481.) *Lath., Hist. of B.* III. *p.* 20. *Gould, B. of Eur. t.* 214. *G. R. Gray, Gen. of B.* II. *p.* 306; *Cat. Brit. B. in Brit. Mus.* (1850), *p.* 90. *Blyth, Cat. B. Mus. A. S. Beng. p.* 94. *Bonap., P. Z. S.* (1850), *p.* 81; *Consp. Gen. Av. p.* 375. *Cabanis, Cat. B. Mus. Heine, p.* 220.

Glandarius pictus, *Koch, Baier. Zool.* I. *p.* 99.
The Common Jay, *Bewick.*

*a. b.* England. Presented by P. L. Sclater, Esq.

863. *GARRULUS BISPECULARIS, Vigors.*

Garrulus bispecularis, *Vigors, P. Z. S.* (1830), *p.* 7. *Gould, Cent. of B. t.* 38. *Royle's Himal. t.* . *Hodgson, Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nepal. p.* 101. *Bonap., P. Z. S.* (1850), *p.* 82; *Consp. Gen. Av. p.* 376. *Cabanis, Cat. B. Mus. Heine, p.* 220.

Garrulus ornatus, *J. E. Gray, Ill. Ind. Zool.* I. *t.* 23, *f.* 2 (1832). *G. R. Gray, Gen. of B.* II. *p.* 306. *Blyth, J. A. S. Beng.* XV. *p.* 31; *Cat. B. Mus. A. S. Beng. p.* 94.

The Himalayan Jay, *Gray.*

*a.* ♂. Bootan. From Pemberton's Collection.
*b. c.* Nepal. Presented by B. H. Hodgson, Esq.
*d. e.* Kumaon. From Captain R. Strachey's Collection.
*f.* ♂. Ningpo, China. Presented by J. Gould, Esq.

864. *GARRULUS LANCEOLATUS, Vigors.*

Garrulus lanceolatus, *Vigors, P. Z. S.* (1830), *p.* 7. *Gould, Cent. of Birds, tt.* 39, 40. *Hodgson, Gray's Zool. Misc.* (1844), *p.* 84; *Cat. B. of Nepal, p.* 101. *Hutton, J. A. S. Beng.* XVII. *pt.* II. *p.* 5. *Bonap., P. Z. S.* (1850), *p.* 81; *C. G. Av. p.* 376. *Cabanis, Cat. B. Mus. Heine, p.* 221.

Celalyca lanceolata, *Kaup.*

Garrulus gularis, *J. E. Gray,* Ill. Ind. Zool.* I. *t.* 10 (1832). *G. R. Gray, Gen. of Birds,* II. *p.* 306. *Blyth, J. A. S. Beng.* XV. *p.* 31; *Cat. B. Mus. A. S. Beng. p.* 94.

Garrulus Vigorsii, *J. E. Gray, Ill. Ind. Orn. t.* 9 (*jun.*).
Vigors's Jay, *Gray.*

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* *Garrulus albifrons* of J. E. Gray, Ill. Ind. Zool. II. t. 12, is a species of the genus *Malacocercus*, viz. *M. Malcolmi*, Sykes.

*a*. ♂. Himalaya. From Bax's Collection.
*b*. Young. Himalaya. From Dr. Lord's Collection.
*c*. ♂. Nepal. Presented by B. H. Hodgson, Esq.
*d*. *e*. ♂ ♀. Kumaon. From Captain R. Strachey's Collection.

"This is one of the commonest birds in the Hills, usually appearing, except in the breeding season, in small parties of five or six, most probably comprising a family. It breeds in May and June, placing the nest sometimes on the branch of a tall oak-tree (*Quercus incana*), at other times in a thick bush: it is composed of a foundation of twigs, and lined with fine roots of grass, &c., mixed with the long black fibres of ferns and mosses which hang upon the forest-trees, and have much the appearance of black horse-hair. The nest is cup-shaped, rather shallow, loosely put together, circular, and about 4½ in. in diameter. The eggs are sometimes three, sometimes four, in number, of a greenish stone-grey, freckled chiefly at the larger end with dusky, and a few black hair-like streaks, which are not always present; they vary, also, in the amount of dusky freckling at the larger end: shape ordinary. The nestling bird is devoid of the lanceolate markings on the throat."—(Captain Hutton.)

## Fam. IV. BUCERIDÆ, *Vigors.*

### Subfam. I. BUCEROTINA.

Genus Bucorvus, *Less., Tr. d'Orn.* (1831).

865. *BUCORVUS ABYSSINICUS, Gmelin Sp.*

Buceros abyssinicus, *Gmelin, S. N.* I. *p.* 358. (*Pl. Enl.* 779. *Le Vaill., Ois. d'Afr. tt.* 230-232.) *Lath., Hist. of B.* II. *p.* 319.

Bucorvus abyssinicus, *Lesson, Tr. d'Orn.* (1831). *G. R. Gray, Gen. of B.* II. *p.* 400. *Bonap., C. G. Av. p.* 89.

Tragopan abyssinicus, *Rüppell, Syst. Uebers. p.* 79.

Buceros carunculatus, *Wagler, Syst. Av. sp.* 6 (1827).

Buceros brac, *Dumont.*

Buceros Leadbeateri, *Vigors.*

The Abyssinian Hornbill, *Latham.*

Erkum, Abyssinia, *Dr. Roth.*

A. and Head. Abyssinia. From Sir W. Harris's Collection.

"Usually seen on the ground busily engaged in searching for large beetles, which constitute the chief portion of its food. It is very active in leaping along the ground, and flies well, and to a great distance at a time. The nest is said to be made in large trees: it is very large, and covered as in the Magpie's, with an entrance on one side."—(G. R. Gray's Gen. of Birds.)

Dr. Roth, in his MS. Notes, states, that "this bird runs quick, and feeds on *Maiz* (Mashela) and *Holcus Sorghum*, Linn. (Teff.). Is not rare in Geddem."

Genus Rhinoplax, *Gloger* (1842).

Cranoceros, *Reichenbach, Syst. Av.* (1849).

Buceroturus, *Bonap., C. G. Av. p.* 89 (1849).

866. *RHINOPLAX SCUTATUS, Boddaërt Sp.*

Buceros scutatus, *Boddaërt, Tabl. des Pl. Enl. d'Aubenton* (1783). *G. R. Gray, Gen. of B.* II. *p.* 399.

Buceros galeatus, *Gmelin, S. N.* I. *p.* 360 (1788). (*Pl.*

*Enl.* 933. *Edw., B. t.* 281, *f.* C.) *Lath., Ind. Orn.* I. *p.* 142; *Gen. Hist. of B.* II. *p.* 307. *Raffles, Trans. Linn. Soc.* XIII. *p.* 291. *Hardwicke, Trans. Linn. Soc.* XIV. *p.* 578, *t.* 23. *Vigors, Mem. Raff. p.* 666. *Blyth, J. A. S. Beng.* XII. *p.* 997; XVI. *p.* 998; *Cat. B. Mus. A. S. Beng. p.* 45.

Rhinoplax galeatus, *Gloger.*

Buceroturus galeatus, *Bonap., C. G. Av. p.* 89.

Galeated Hornbill, *Shaw.*

Helmet Hornbill, *Latham.*

Tibbang Muntovah, Malays, *Farquhar.*

Toko, and Burong Gading, Sumatra, *Raffles.*

*a.* ♂. Keddah, Malay Penins. Presented by Dr. Cantor.

"Iris, eyelids, pouch, legs, and feet, Indian-red."—(Dr. Cantor's Notes.)

Genus Buceros, *Linn. S. N.* (1748).

Tragopan, *Mœhring* (1752).

Meniceros, *Gloger* (1842).

867. *BUCEROS RHINOCEROS, Linn.*

Buceros Rhinoceros, *Linn., S. N.* I. *p.* 153. (*Pl. Enl.* 934. *Le Vaill., Ois. d'Amér. et Ind. tt.* 1, 2. *Edw., B. t.* 281, *f.* B.) *Horsfield, Trans. Linn. Soc.* XIII. *p.* 175. *Raffles, Trans. Linn. Soc.* XIII. *p.* 291. *Begbie, Malay Penins.* (1834), *Ann. N. H.* XVII. *p.* 404. *Blyth, J. A. S. Beng.* XII. *p.* 993; XIV. *p.* 188; XVI. *p.* 993; XVIII. *p.* 803; *Cat. B. Mus. A. S. Beng. p.* 42. *G. R. Gray, Gen. of B.* II. *p.* 399. *Bonap., C. G. Av. p.* 89.

Buceros africanus, *Gmel., S. N.* I. *p.* 359.

Buceros niger, *Shaw, Zool.* VIII. *p.* 7. (*Le Vaill., Ois. d'Amér. et Ind. t.* 13.)

Buceros sylvestris, *Vieillot.*

Buceros diadematus, *Dumont.*

Buceros lunatus, *Temm., Pl. Col.* 546. *Bonap., C. G. Av. p.* 90.

The Rhinoceros Hornbill, *Lath.*

Inggang Danto, Malays, Sumatra, *Raffles.*

Burong Taun, Sumatra, *Marsden.*
Rangkok or Jongrang, Java, *Horsfield.*

A. ♂. Sumatra. From Sir S. Raffles's Collection.
*b.* Coloured drawing of Bill, natural size. From Parry's Collection.
*c.* ♀. Drawing. Java. From Horsfield's Collection.
*d. e.* ♂ ♀. Malacca. Presented by Dr. Cantor.

"The sexes of this Hornbill may be distinguished by the *posterior* surface of the horn above the forehead, being black in the male, and concolorous with the rest of the horn in the female; besides which, the male has a black line dividing the bill and casque, and continued forward and upward upon the latter, parallel with its anterior margin."—(Blyth.)

Captain P. J. Begbie says: "What the precise use of the hollow protuberance surmounting the bill is, I am unable to say, but I think it not improbable that a communication exists between it and the *larynx*, producing the shrill and grating cry uttered by the bird, which is heard when it is soaring even at a great height. The Hornbills build on the tops of the loftiest trees, and are extremely shy, seldom permitting the sportsman to approach within range. When taken alive, they make a strenuous resistance with their long and powerful wings."

Genus Homraius, *Bonaparte, Ateneo Italiano* (1854).

868. *HOMRAIUS BICORNIS, Linn. Sp.*

Buceros bicornis, *Linn. S. N.* I. *p.* 153. (*Le Vaill., Ois. d'Amér. et Ind. tt.* 7, 8.) *G. R. Gray, Gen. of B.* II. *p.* 399. *Bonap., C. G. Av. p.* 89.

Homraius bicornis, *Bonaparte, Ateneo Italiano* (1854).

Buceros cavatus, *Shaw, Zool.* VIII. *p.* 18 (1811). (*Le Vaill., Ois. d'Amér. et Ind. tt.* 3, 4, 5.) *Raffles, Trans. Linn. Soc.* XIII. *p.* 291. *Vigors, Mem. Raffles, p.* 666. *Gould, Cent. of B. t. Jerdon, Madras Journ.* XI. *p.* 37. *Blyth, J. A. S. Beng.* XII. *p.* 986; XIV. *p.* 187; XVI. *p.* 993; *Cat. B. Mus. A. S. Beng. p.* 42. *Tickell, J. A. S. Beng.* XXIV. *p.* 279.

Buceros Homrai, *Hodgs., J. A. S. Beng.* I. *p.* 251 (1832); *Asiat. Res.* XVIII. *pt.* II. *p.* 169, *t. Gray's Zool.*

*Misc.* (1844), *p.* 85; *Cat. B. of Nep. p.* 111. *Pearson, J. A. S. Beng.* II. *p.* 423; X. *p.* 653. *McClelland, P. Z. S.* (1839), *p.* 164. *G. R. Gray, Gen. of B.* II. *p.* 399.

Bifid-casqued Hornbill, *Shaw.*

Concave-casqued Hornbill, *Shaw.*

Ban Rao (*i. e.* 'Jungle King'), Masuri, *Hutton.*

Homrai, Nepal, *Hodgson.*

Garuda, natives of forests of S. India, *Jerdon.*

Malah-moraykey, Malyalum, *Elliott.*

Youny-yeng, Arracan, *Phayre.*

Burong-Oondan, Malays, *Raffles.*

Inggang Papan, Sumatra, *Raffles.*

*a.* ♀. N. India. From Griffith's Collection.

*b.* Drawing. Assam. From McClelland's Collection.

*c.* ♂. Tenasserim. From Helfer's Collection.

*d.* ♂. Malacca. *e. f.* ♀ and Young. Pinang. Presented by Dr. Cantor.

"This bird inhabits the extensive hill-forests of all India, Assam, Arracan, Tenasserim, Malayan peninsula [Pinang], and Sumatra. It does not appear to be subject to any variation of plumage, either sexual or according to age; but there are some differences in the colouring of the bill and casque of the sexes (as noticed below), and also of the irides, which, in the adult male, are intense crimson, and in the females and young hoary."—(Blyth.)

"At the root of the tail of this bird, on the upper side, immediately above the vent, is a small sac, in which is a bundle or pencil of short bristles, forming a brush, from which exudes a yellow oily secretion, with which the bird appears to dress the white wing-spot. When first shot, the yellow colour comes off the bill in considerable quantities; and the only parts of the body besides that are stained with this colour, are the wing-spot, rump, and the small crest on the back of the head; this latter but slightly. This yellow substance continued to exude from the brush long after the specimen was prepared and dry.* The *Garuda* is sacred to Vishnu, among the inhabitants of the forests. Bill vermilion above, passing into yellow; the lower

* This secretion is also noticed by Mr. Hodgson in the "Asiatic Researches."

mandible whitish, at the base blackish. The male bird has the space between the prominence and the true beak in front blackish, from which a black stripe runs down the crest of the beak towards the point, and the posterior termination of the prominence is also dusky in the male, red in the female. This Hornbill is very shy, and difficult to approach. The noise of its wings when flying is very loud, and can be heard some distance off. The Malyalum name signifies, I am informed, 'that make the jungles resound.'"—(W. Elliott's Notes.)

In the "Asiatic Researches," Mr. Hodgson states: "The Hômrái tenants the whole of the lower ranges of hills which lie contiguous to the plains, from Haridwar on the west to Assam on the east, and, following the course of the larger rivers traversing these regions, it penetrates a considerable distance into their mountainous interior; but in such cases always confines itself to the low valleys through which the rivers flow, and never ascends the neighbouring lofty mountains to dwell among them. I have been told that the Hômrái is migratory, that it tenants the lower hills only during the winter and spring, and proceeds northward to the vicinity of the snows on the accession of the hot weather, there to reside during the hot months of the year; but I am inclined to doubt the accuracy of this report, though it came from those who were familiar with the bird during its periodical residence in their limited district, and though I have known a tail-feather of the species to be picked up in the woods of Nepal proper, where the Hômrái certainly does not reside at any season.

It loves the lofty perch afforded by the fine old Burr and Pipul trees (*Ficus indica* and *religiosa*), and is passionately fond of their fruit. The people of Dumja, a small open and cultivated tract at the confluence of the Rosi and Sûn Kosi, in the interior of the mountains, but communicating by the narrow valley of the latter river with the lesser hills and Tarai, assure me that the Hômrái frequents their district exclusively in the cold season, and that it migrates northerly towards the close of February, when the heats become excessive. I cannot imagine the species to be truly migratory, but think it probable that it resorts to the valleys during the cold weather, to the *proximate* heights, both for coolness and for retirement in the breeding season, during the hot and rainy months of the year; and it may be easily supposed to move about from district to district, within the general limits assigned to it by nature, in quest of those various fruits which constitute its principal, if not exclusive,

food; and thence to appear migratory to the people of any one of these districts.

This species is gregarious, of staid and serious manners and motions, full of confidence and quietness, and seeming to prefer the few open and cultivated spots in the wilds it inhabits; which spots are usually limited to the banks of rivers. There, perched on the top of some huge fantastic Burr-tree, you may see this large, grotesque, and solemn bird sit motionless for hours, with his neck concealed between the high shoulders of its wings, and its body sunk upon its tarsi. Occasionally it will take a short flight, accompanied by one or two companions (for it is a social bird), to some other high tree; never, so far as I have observed, alighting on the ground, nor on a low tree. Twenty or thirty birds are commonly found in the same immediate vicinity, six or eight upon the same tree, if it be large; and they will continue perched for hours with the immovable gravity of judges, now and then exchanging a few syllables in the most subdued tone of a voice as uncouth as their forms and manners. This subdued articulation is not louder than, and is similar in character with, the low croaking of a bull-frog. But if the remorseless gunner intrude upon this solemn congress, and bring down, without mortally wounding, one of its members, the clamours of the captive bird will utterly amaze him. I cannot liken this vehement vociferation to anything but the braying of a jackass; its power is extraordinary, and is the consequence of an unusually osseous structure of the rings of the trachæa and of the larynx.

The Hômrái flies with its neck stretched out, its legs retracted, and its tail levelled and somewhat expanded. Its flight is straight and laborious, with heavy, uniform, frequent motion of its wings, which, though ample in size, have not a corresponding degree of energy: I presume so from the short, straight, and laborious flight of the Hômrái; and Dr. Bramley infers the same thing from the lax concatenation of the vertebræ of its back.

With respect to food, my impression is that the Hômrái is almost exclusively frugivorous. That it is altogether so, *at certain seasons*, is unquestionable; for, out of six birds which I opened in January and February, there was not one the stomach of which contained a single particle of anything but the fruit of the Pipul-tree.

It is almost helpless on the ground; with feet incapable of grasping, in the raptorial sense, but admirably suited for laying hold upon the larger branches of those tall trees in which the species seem to spend nearly their whole lives, feeding and roosting in one

and the same place, and having no necessity to go abroad in search of water, since they never take it.

From a comparison of many specimens of the Hômrái, showing both sexes in maturity, and the young in various stages of progression towards it, I am led to conclude that the body does not reach its full size under two or three years, and that the bill and casque, especially the latter, are not perfectly developed in less than four or five years.

The casque and upper mandible deep waxen-yellow, passing to rich red on the top of the casque and towards the tip of upper mandible; the tip itself and the lower mandible ivory-white; base of both mandibles, anterior and posterior surface of the casque, a line along the ridge of the bill, its cutting edges, and the whole inner surface of the bill, and naked skin round the eye, black; iris intense crimson. The female, and young of a year old, have the iris pure hoary, the naked skin of the ophthalmic region pale purpurescent dusky, and the black colour, which distinguishes the casque and ridge, cutting edges and interior surface of the bill in the male, being red."

Mr. Hodgson also gives lengthened descriptions of the growth of the young of this bird, and also an elaborate account of the skeleton, by Dr. M. J. Bramley.

The Rev. J. Mason, in his work on the Natural Productions of Burmah, states, of the Concave Hornbill: "Their nests are constructed in a superior manner, of clay, in the stumps or hollows of old trees. After the female has layed five or six eggs, the male bird shuts her entirely in with mud, except a small orifice where she can only peep out her head; here she must sit during her incubation, for if she breaks through the inclosure, her life pays the forfeit; but to compensate for the loss of freedom, her spirited mate is ever on the alert to gratify his dainty mistress, who compels him to bring all her viands unbroken; for if a fig or any fruit be injured, she will not touch it."

Captain Tickell, writing from the Tenasserim provinces, remarks: "I obtained the egg of *Buceros cavatus*, and *have seen with my own eyes* that the male builds the female in by covering the hole in the tree where she incubates with mud, leaving only room for her bill to protrude and receive food from his! I thought that this was a fable."—(J. A. S. Beng. XXIV. p. 279.)

The reader will find an anatomical account of this bird by Prof. Owen in the Proceedings of the Zoological Society, 1833, p. 102.

Genus Hydrocissa, *Bonap., C. G. Av. p.* 90 (1849).

Anthracoceros, *Reichenbach, Syst. Av.* (1849).*

869. *HYDROCISSA CORONATA, Boddaërt Sp.*

Buceros coronatus, *Boddaërt, Tabl. des Pl. Enl. d'Aubenton* (1783). *G. R. Gray, Gen. of B.* II. *p.* 399.

Buceros Pica, *Scopoli, Deliciæ Floræ et Faunæ Insub. p.* (1786). (*Sonn., Voy. Ind. t.* 121. *Pl. Enl.* 873.) *Blyth, J. A. S. Beng.* XVI. *p.* 993; XVIII. *p.* 802; XXI. *p.* 352; *Cat. B. Mus. A. S. Beng. p.* 43.

Buceros monoceros, *Shaw, Zool.* VIII. *p.* 8. (*Le Vaill., Ois. d'Amér. et Ind. tt.* 9, 10, 11, 12.)

Hydrocissa monocera, *Bonap., C. G. Av. p.* 90.

Buceros malabaricus, var. *β*, *Lath., Ind. Orn.* I. *p.* 143; *Gen. Hist. of B.* II. *p.* 311.

Buceros malabaricus, *apud Tickell, J. A. S. Beng.* II. *p.* 579. *Jerdon, Madr. Journ.* XI. *p.* 38. *Blyth, J. A. S. Beng.* XII. *p.* 993. *Layard, Ann. N. H.* XIII. *p.* 260.

Buceros violaceus, *Shaw, Zool.* VIII. *p.* 19. (*Le Vaill., Ois. d'Amér. et Ind. t.* 19.) *Variety.*

Buceros viridis, *Lath., Ind. Orn.* I. *p.* 147.

The Malabar and Ceylon Pied Hornbill.

Bægma Dunnase, *White, Asiatic Res.* IV. *p.* 119.

Danchuri, Hind., *Jerdon.*

Ibba Haki, Canara, *Jerdon.*

Atta-kandatta, Ceylon, *Layard.*

Errana-chundoo-cooroovi, Mal., Ceylon, *Layard.*

A. ♂. Indian Penins. From Asiatic Society of Bengal.

B. Drawing. Ceylon. From M. Joinville's Collection.

C. Drawing. Ceylon. Presented by Mrs. Marsden.

"Inhabits all the peninsula from Central India southward, and Ceylon."—(Blyth.)

"This Hornbill is to be met with in the peninsula wherever there is lofty forest jungle, and is most plentiful on the Malabar coast; but even here it is far from being a common bird. It lives in parties of four, five, six, or more, and feeds on fruit and berries of different kinds."—(Jerdon.)

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* *Nec.* Anthracocera, *Lepidoptera.*

Captain Tickell states: "These birds were very common in all the more open and large-timbered spaces in the jungles of Borabhúm, frequenting in preference the Pipul-trees, the berry of which forms their principal food. The young continue with the parent birds for many months after leaving the nest; hence these Hornbills are generally met traversing the forests in flocks of eight or ten. They are shy and wary, and the voice loud, clanging, and harsh. The horn is not developed till after the first year. These birds are never met with in the high rocky lands, nor in the barren tracts of saul-jungle, but abound in the rich meadows composing the valley of the Subonrika."

"In Ceylon," remarks Mr. Layard, "I have observed this species at Tangalle and near St. Pedro. It generally flies in large flocks, and seeks much of its subsistence on the ground; in such situations, I never could detect what it sought; but on trees it feeds upon berries and fruits. To procure the latter, when attached to a branch, it resorts to an odd expedient,—the coveted morsel is seized in its powerful bill, and the bird throws itself from its perch, twisting and flapping its wings until the fruit is detached: on this, the wings are extended, the descent arrested, and the bird regains its footing; the head is now thrown back, and the food allowed to fall into the throat, and swallowed without mastication. A live bird which I had for some time in my possession used its bill for the purpose of recovering its perch, as a parrot would do, with this exception, that the *Buceros* employed the whole of the bill, hooking on by the *under side* of the lower mandible, while the parrot uses the upper mandible. I have been credibly informed that, during the season of incubation, the male bird incloses the female in the hollow tree selected for the reception of the nest with a wall of mud, as a defence against the monkey tribes, who certainly would need more than ordinary courage to attack a fortress defended by such a formidable weapon as the powerful bill of the bird. The cock bird assiduously provides for his imprisoned partner, feeding her through an aperture left for the purpose; and when the young are excluded, breaks down the wall and sets her free to assist him in satisfying the increased demand upon his parental energies."

870. *HYDROCISSA ALBIROSTRIS*, *Shaw Sp.*

Buceros albirostris, *Shaw*, *Zool.* VIII. *p.* 13 (1811). (*Le Vaill.*, *Ois. d'Amér. et Ind. t.* 14.) *Blyth*, *J. A. S. Beng.* XII. *p.* 995; XVI. *p.* 994; XVIII.

*p.* 803; *Cat. B. Mus. A. S. Beng. p.* 43. *Hodgs., Cat. B. of Nep. p.* 112.

Buceros malabaricus,* *Gmel., S. N.* I. *p.* 359. (*Edw., Birds, t.* 281, *f.* D.) *Latham, Ind. Orn.* I. *p.* 143; *Gen. Hist. of B.* II. *p.* 316. *McClelland, P. Z. S.* (1839), *p.* 164. *F.* (*B.*) *Hamilton, MS.* II. *p.* 141.

Buceros leucogaster, *Blyth, J. A. S. Beng.* X. *p.* 922 (*juv.*); XII. *p.* 177.

Buceros nigralbus, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

Buceros Pica, *apud G. R. Gray, Gen. of B.* II. *p.* 399.

Hydrocissa Pica, *apud Bonap., C. G. Av. p.* 90.

Buceros malabaricus, var. A., *Lath., Hist. of B.* II. *p.* 317.

The Common Pied Hornbill.

Auk-khyeng, Arracan, *Phayre.*

*a. b.* ♂ ♀. Bengal. Presented by Dr. Falconer.

*c. d.* ♂, ♀, and Drawing, Assam. From McClelland's Collection.

*e. f.* Adult and jun. Nepal. Presented by B. H. Hodgson, Esq.

*g.* ♂ and Drawing of jun. (*B. leucogaster*, Blyth). Tenasserim. From Asiatic Society of Bengal.

*h. i.* ♀ and jun. Tenasserim. From Helfer's Collection.

Allied in colour to *H. coronata*, but in size is smaller, and the four pairs of lateral tail-feathers are only tipped with white; the casque, also, is much wider (as if inflated), and the black patch upon it is much smaller, appearing only on the extreme tip of the ridge, but spreading downward and backward over part of the middle of the upper mandible, which latter it never reaches in *H. coronata;* the cutting edges of both mandibles are also more or less black in *H. albirostris.* In the female, the black patch is less defined, often occupying as much as half of the ridge of the casque, and extends even to occupy the tip of the upper mandible, while the cutting edges of both mandibles are also black.

"Inhabits Bengal, Nepal, Assam, Sylhet, Arracan, and the Tenas-

* This name is inadmissible, on account of this species *not* being found in Southern India.

serim provinces. I observed it to be tolerably common in the jungles of Midnapore."—(Blyth.)

According to the Rev. J. Barbe, "This species associates in large flocks in Tenasserim;" and Dr. Helfer also states the same.

871. *HYDROCISSA CONVEXA*, *Temminck Sp.*

Buceros convexus, *Temm.*, *Pl. Col.* 530 (183–), ♀. *Motley and Dillwyn, Nat. Hist. of Labuan, p.* 53.

Buceros intermedius, *Blyth, J. A. S. Beng.* XVI. *p.* 994 (1847); XVIII. *p.* 803; *Cat. B. Mus. A. S. B. p.* 43.

Buceros albirostris, *apud Horsfield, Trans. Linn. Soc.* XIII. *p.* 175.

Buceros malabaricus, *apud Raffles, Trans. Linn. Soc.* XIII. *p.* 291. *Vigors, App. Mem. Raffles, p.* 666.

Buceros violaceus, *apud Hay, Madr. Journ.* XIII. *pt.* II. *p.* 148.

The Malayan Pied Hornbill.

Klinglingan, Java, *Horsfield.*

Angka Angka, Sumatra, *Raffles.*

Mattee See-cawan, Malacca, *Cantor.*

A. and Drawing. ♂. Adult. Java. From Dr. Horsfield's Collection.

*b. c.* Adult ♂. Malacca. *d. e. f.* ♂ ♀. Adult and Nestling. Pinang. Presented by Dr. Cantor.

In plumage, like *H. albirostris*, but with the four lateral pairs of tail-feathers wholly white: in adults and in the young, these are black at base, and the middle pair tipped with white.

"Iris vandyke-brown; naked space round the eyes and sides of throat bluish-white."—(Dr. Cantor.)

This species is very abundant at Pinang, and is also found at Malacca, Java, and Sumatra.

"This Hornbill is not uncommon in Labuan; they are shy and wild in their habits, haunting very deep and tall jungle, and are generally seen in pairs. They feed almost entirely on fruits, though some which were kept in a cage for some time would eat almost anything; they preferred plantains, however, of which they would gulp three or four at a meal: the Malays say that they sometimes go on to the sea-beach to eat small fish. These specimens were chiefly fed with boiled rice, rolled into balls, and which they bolted

with great avidity; they became very tame, and always greeted their feeder with a croak. On one occasion, they bolted some ducklings which ventured within reach of their beaks. When first procured, one of these was very young, and without any sign of a horn upon his head; it grew, however, very rapidly. Small flocks of these birds may sometimes be seen at dusk flying steadily along over the tops of the jungle, and evidently bound for a long flight. Their note is a very harsh and discordant croak, uttered with the mouth wide open, and with a curious alternate movement of the floor of the mouth and the short tongue, at every repetition. It lasts sometimes for a minute or more, and is very striking when heard in the woods; it sounds something between the bray of an ass and the croak of a Landrail." —(Messrs. Motley and Dillwyn, Nat. Hist. of Labuan, 1855.)

Genus novum —— ?

872. *HYDROCISSA* (?) *MALAYANA*, *Raffles Sp.*

Buceros malayanus, *Raffles*, *Trans. Linn. Soc.* XIII. *p.* 292 (1822), *juv.* ♂. *Temminck*, *Text. de Pl. Col.* *G. R. Gray*, *Gen. of B.* II. *p.* 399. *Blyth*, *J. A. S. Beng.* XVI. *p.* 995; XVIII. *p.* 803; *Cat. B. Mus. A. S. Beng. p.* 43.

Hydrocissa malayana, *Bonap.*, *C. G. Av. p.* 90.

Buceros anthracinus, *Temm.*, *Pl. Col.* 529.

Buceros bicolor, *Eyton*, *P. Z. S.* (1839), *p.* 104. *Blyth*, *J. A. S. Beng.* XII. *p.* 995.

Buceros Elliotti, *Hay*, *Madr. Journ.* XIII. *pt.* II. *p.* 152 (1844).

The White-browed Hornbill.

Quay Quay, Malays, *Eyton.*

Mattee See-cawan, Malays, *Cantor.*

*a.* ♂. Juv. Malacca. Presented by J. Middleton, Esq.

*b. c.* ♀. Province Wellesley, Malacca. Presented by Dr. Cantor.

In our specimen of *immature male*, the plumage is wholly glossy-black, excepting a superciliary coronal circle and tips of the four outer tail-feathers, which are white; the bill and casque are spotless yellowish-white, excepting the base of the former and hindmost part of the latter, which are black, the casque sloping gradually in front to the curvature of the bill. Length of wing 10½ in., of tail 12½ in.,

its outer feather 3 in. less; bill from gape $4\frac{3}{4}$ in., from hindmost part of casque to point of bill, in a straight line, 6 in.; height from chin to top of casque, 3 in.

Presumed *adult* female has the superciliary coronal circle represented by obscure silvery-greyish. Length of wing $13\frac{1}{2}$ in., of tail 16 in., outermost feather 4 in. less; bill from gape $5\frac{1}{4}$ in., length of casque 5 in., height from chin to top of casque, 3 in. The casque in both birds is allied in shape to that of *H. albirostris* and *H. convexa*, and is of a different form to that of *H. nigrirostris*.

The female, according to Dr. Cantor's Notes, has the "iris greyish-brown, bill yellowish-white, or buff, naked space round the eyes livid, feet black."

873. *HYDROCISSA* (?) *NIGRIROSTRIS, Blyth Sp.*

Buceros nigrirostris, *Blyth, J. A. S. Beng.* XVI. *p.* 995 (1847); XVIII. *p.* 803; XXIV. *p.* 272; *Cat. B. Mus. A. S. Beng. p.* 44.

Buceros malayanus, *apud Lord Hay, Madr. Journ.* XIII. *pt.* II. *p.* 151.

Quay-Quay, Malays, *Cantor.*

The Black-billed White-browed Hornbill.

*a. b.* ♂ ♀. Malacca. Presented by Dr. Cantor.

Plumage, in the presumed *male*, glossy greenish-black above, including the chin and throat, which, and the under-parts, are less glossy; head adorned with a broad yellowish-white superciliary coronal circle; tips of the four outer tail-feathers yellowish-white; space round the eyes and basal angle of lower mandible, naked, and in the dry skin, yellowish. Presumed *female*, as in male, excepting that the superciliary circle is represented by obscure silvery-greyish; bill and casque blackish; "and in the young," says Mr. Blyth, "white. The form of the casque is low, thinly compressed towards the front, and abruptly truncate anteriorly, with a longitudinal ridge on each side, in old birds, occasioning a broad shallow groove above and another below it."

Length about 20 in., of wing $11\frac{3}{4}$ in., tail to tip of middle feathers, 13 in., to tip of outer feather $10\frac{1}{2}$ in., bill from gape $4\frac{3}{4}$ in., length of casque 3 in., height from chin to top of casque $2\frac{1}{2}$ in.

Mr. A. R. Wallace states, in a letter from Singapore (Ann. Nat. Hist., Feb. 1855), that *H. nigrirostris* is the female of *H. malayanus*,

Raffles, v. *anthracinus*, Temm. "I satisfied myself of this fact from the dissection of about a dozen specimens shot off the same tree."

The bill and casque of *H. malayanus* is allied in form to *H. albirostris* and *convexa*, Temm., v. *intermedius*, Blyth; and that of *H. nigrirostris*, somewhat to that of the next species.

We have described these birds as *male* and *female* on the authority of Dr. Cantor's Notes.

Genus Anorrhinus, *Reichenbach, Syst. Av.* (1849).

874. *ANORRHINUS GALERITUS, Temminck Sp.*

Buceros galeritus, *Temm., Pl. Col.* 520. *G. R. Gray, Gen. of B.* II. *p.* 399. *Blyth, Cat. B. Mus. A. S. Beng. p.* 44.

Anorrhinus galeritus, *Reichenbach, Syst. Av.*

Hydrocissa galerita, *Bonap., C. G. Av. p.* 90.

Buceros carinatus, *Blyth, J. A. S. Beng.* XIV. *p.* 187 (1845); XVI. *p.* 996.

Quay Quay, Malays, *Dr. Cantor.*

*a. b. c. d.* ♂ ♀. Malacca. Presented by Dr. Cantor.

Colour green-glossed black, with the basal two-thirds of the tail drab-coloured, the wing-feathers slightly margined paler; head fully crested, composed of broad longish feathers; throat naked; bill and casque black in the one sex, which seems always to have the abdominal region pale; in the other, yellowish-white, with black along the summit of the casque, nearly to the end, and also occupying the basal two-thirds of the lower mandible, and the tomiæ of the upper one: and, according to Dr. Cantor's MS. Notes, "iris is vandyke-brown; naked space round the eyes, and pouch, black; feet greenish-grey." "A young specimen," says Mr. Blyth, "is quite similar to the adults in plumage, but has no trace of casque; and the bill is nigrescent, with a whitish ridge and tip: the casque in this species is low, and with a keel-shaped ridge, sloping off to the front."

Genus Berenicornis, *Bonap., C. G. Av. p.* 91 (1849).

875. *BERENICORNIS COMATUS, Raffles Sp.*

Buceros comatus, *Raffles, Trans. Linn.* XIII. *p.* 339 (1822). *Schlegel et Müller, Verh. Natuurl. Gesch. Aves, p.* 29, *t.* 4, ♂. *Temminck, Text. de Pl. Col. Hay, Madr. Journ.* XIII. *pt.* II. *p.* 149. *Blyth, J.*

*A. S. Beng.* XIV. *p.* 187; XVI. *p.* 996, *t.* 44, *f.* 2, ♀; *Cat. B. Mus. A. S. Beng. p.* 44. *G. R. Gray, Gen. of B.* II. *p.* 399.

Berenicornis comatus, *Bonap., C. G. Av. p.* 91.

Buceros lugubris, *Begbie, Malay Penin.* (1834), *p.* ; *Ann. N. H.* XVII. *p.* 405.

The Melancholy Hornbill, *Begbie.*

A. ♀. Malacca. Presented by Dr. Cantor, 1854.

"In this species, the adult males have the finely-plumed head, neck, breast, abdomen, tail, and wing-tips, pure white; the remainder black, a little tinged with brown upon the back: whereas the females have the neck, breast, and abdomen also black. Sir Stamford Raffles described the young male only, with 'back, wings, and tail of a dark brown; the belly of the same colour, mixed with white; and the wing and tail-feathers all tipped with white at their points. Colour of the beak and casque dusky, the former laterally whitish towards its base. Throat moderately well feathered. Size rather large, intermediate to *H. coronata* and *B. rhinoceros*, with proportionally long and broad cuneated tail."

"This bird is melancholy in its disposition, but withal voracious in its habits. I had one in confinement for some time, feeding it principally on plantains, which it devoured greedily, and never attempted to escape from its perch. I destroyed it on account of the filth and stench which it generated."—(Captain Begbie.)

Genus Tockus, *Lesson, Tr. d'Orn. p.* 252 (1831).

Rhynchaceros, *Gloger* (1842).

Meniceros, *Bonaparte* (1854), *nec. Gloger.*

876. *TOCKUS ERYTHRORHYNCHUS, Temminck Sp.*

Buceros erythrorhynchus, *Temm., Text. de Pl. Col. sp.* 19. (*Pl. Enl.* 260. *Le Vaill., Ois. d'Afr. t.* 238.) *Wagler, Syst. Av. sp.* 20. *G. R. Gray, Gen. of B.* II. *p.* 400.

Tockus erythrorhynchus, *Lesson, Tr. d'Orn. p.* 252 (1831). *Rüppell, Syst. Uebers. p.* 79. *Bonap., C. G. Av. p.* 92.

Buceros nasutus, *Cuvier* (*nec. Linn.*).

Buceros nasutus, var. *β*, *Gmel., Syst. Nat.* I. *p.* 361.

*Lath., Ind. Orn.* I. *p.* 145; *Gen. Hist. of B.* II. *p.* 329.

Red-billed Hornbill, *Lath.*

A. ♂. Abyssinia. From Sir W. Harris's Collection.

877. *TOCKUS FLAVIROSTRIS, Rüppell Sp.*

Buceros flavirostris, *Rüppell, Fauna Abyss. Aves, p.* 6, *t.* 2, *f.* 1 (1835). *G. R. Gray, Gen. of B.* II. *p.* 400. *Blyth, J. A. S. Beng.* XXIV. *p.* 299.

Tockus flavirostris, *Rüppell, Syst. Uebers. p.* 79. *Bonap., C. G. Av. p.* 92.

Yellow-billed Hornbill, *Lath., Hist. of B.* II. *p.* 331.

Kudunkutu, Somáli, *Lieut. Speke.*

A. ♂. Abyssinia. From Sir W. Harris's Collection.

"A common bird in the Somáli country. He makes a loud quacking noise, not unlike a frog; is fond of the jungle-trees, and is noisy about sunrise."—(Lieutenant Speke, 46th Bengal N.I.)

878. *TOCKUS NASUTUS, Linn. Sp.*

Buceros nasutus, *Linn., Syst. Nat.* I. *p.* 154. (*Pl. Enl.* 890. *Le Vaill., Ois. d'Afr. tt.* 236, 237.) *Gmel., Syst. Nat.* I. *p.* 361. *Lath., Hist. of B.* II. *p.* 328. *Temm., Text. de Pl. Col. sp.* 18. *Wagler, Syst. Av. sp.* 19. *G. R. Gray, Gen. of B.* II. *p.* 400.

Tockus nasutus, *Rüppell, Syst. Uebers. p.* 79. *Bonap., C. G. Av. p.* 91.

Buceros nasicus et hastatus, *Cuvier.*

Black-billed Hornbill, *Latham.*

A. ♀. Abyssinia. From Sir W. Harris's Collection.

879. *TOCKUS LIMBATUS, Rüppell Sp.*

Buceros limbatus, *Rüppell, Fauna Abyss. p.* 5, *t.* 2, *f.* 1 (1835). *G. R. Gray, Gen. of B.* II. *p.* 400.

Tockus limbatus, *Rüppell, Syst. Uebers. p.* 79. *Bonap., C. G. Av. p.* 92.

A. B. ♂ ♀. Abyssinia. From Sir W. Harris's Collection.

"The naked space on the sides of the throat of this species is black in the male, and yellow in the female."—(Roth's MS. Notes.)

"Feeds on small reptiles, mice, and locusts."—(Dr. Roth's MS. Notes.)

880. *TOCKUS MELANOLEUCUS, Lichtenstein Sp.*

Buceros melanoleucus, *Lichtenstein, Verz. Doubl. Berl. Mus. p.* 8; *id.* (1823), *p.* 21. (*Le Vaill., Ois. d'Afr. tt.* 234, 235.) *Vieillot, Enc. Méth. Ois. t.* 240, *f.* 4. *G. R. Gray, Gen. of B.* II. *p.* 400.

Tockus melanoleucus, *Bonap., C. G. Av. p.* 91.

Rhynchoceros melanoleucus, *Gloger.*

Buceros coronatus, *Shaw, Zool.* VIII. *p.* 35 (1811). *Swains., Zool. Ill. 2nd ser. t.* 178.

A. Cape of Good Hope. Presented by Dr. Horsfield.

881. *TOCKUS BICORNIS, Scopoli Sp.*

Buceros bicornis, *Scopoli, Del. Floræ et Faun. Insub.* (1786). (*Sonn., Voy. t.* 121. *Le Vaill., Ois. Amér. et Ind. t.* 15.)

Buceros ginginianus, *Lath., Ind. Orn.* I. *p.* 146 (1790); *Gen. Hist. of B.* II. *p.* 314. *Shaw, Zool.* VIII. *p.* 36. *Tickell, J. A. S. Beng.* II. *p.* 579. *Jerdon, Madras Journ.* XI. *p.* 38. *Blyth, J. A. S. Beng.* XII. *p.* 996. *Hodgson, Cat. B. of Nep. p.* 112. *G. R. Gray, Gen. of B.* II. *p.* 400.

Tockus ginginianus, *Bonap., C. G. Av. p.* 91.

Meniceros ginginianus, *Bonaparte* (1854).

Buceros oxyurus, *Wagler, Syst. Av. sp.* 14 (1827).

Buceros cinerascens, *Hodgson, Gray's Zool. Misc. p.* 85 (1844).

Buceros birostris, *Blyth, J. A. S. Beng.* XVI. *p.* 995 (1847); *Cat. B. Mus. A. S. Beng. p.* 44.

? Buceros griseus, *Lath., Ind. Orn.* I. *p.* 147.

? Buceros cineraceus, *Temm., Text. de Pl. Col.*

Indian Hornbill, *Lath., Hist. of B.* II. *p.* 315.

Gingi Hornbill, *Latham.*

Common Grey Hornbill, *Jerdon.*

Putteal Dunnase, *White, As. Res.* IV. *p.* 121.

Dhanmar or Lamdar, Upper Prov., *Phillips.*

Chakrotra, Hind., *Jerdon.*

*a.* Himalaya. From Griffith's Collection.
*b.* N. India. From Dr. Falconer's Collection.
C. D. Madras. From Wight's Collection.
*e.* Drawing. From Heyne's Collection.

"Inhabits India generally (*nec.* Assam); never on the eastern side of the Bay of Bengal. In the Midnapore jungles, I observed it constantly in pairs, instead of in small flocks like *H. albirostris*."—(Blyth.)

Rev. T. Phillips, in his MS. Notes, states, that "this is very shy, especially towards roosting-time. A specimen killed at Hasanpur, on the Ganges, received two shots, and died after repeated attempts to strangle it. It uttered a shrill sound, like *kik*, while on the tree, and when wounded. In its belly was found a hard lump, the size of a pigeon's egg, which, on being cut open, was found filled with the fruit of the Peepul and other trees."

"This bird is spread all over the Peninsula, frequenting not only jungles, but also, not unfrequently, large groves of trees and avenues (in the more wooded parts of the open country). It is generally seen in small parties, or sometimes single. I have generally found fruit in the stomach of this bird; but on one occasion I found some large insects, chiefly Mantides."—(Jerdon.)

Lieutenant Hardy remarks: "I was out shooting one day beyond Pahlunpore, when a slate-coloured bird, about the size and figure of a Magpie, flew past me. My beaters marked it down on a tree, where I shot it. They then told me that it was very valuable to them, that they would chop up the flesh, pickle and preserve it in a bottle, and sell it as a medicine to alleviate the pangs of child-birth, for which it was highly prized."—(P. Z. S. 1850, p. 275.)

Genus Rhyticeros, *Reichenbach, Syst. Av.* (1849).
Calao, *Bonap., C. G. Av. p.* 90 (1849).
Cassidix, *Bonap.* (1849).

882. *RHYTICEROS PLICATUS, Latham Sp.*

Buceros plicatus, *Lath., Ind. Orn.* I. *p.* 146 (1790); *Gen. Hist. of B.* II. *p.* 323, *t.* 34. (*Le Vaill., Ois. d'Afr. t.* 239, ♂.) *Shaw, Zool.* VIII. *p.* 38. *Temm., Text. de Pl. Col. sp.* 8. *G. R. Gray, Gen. of B.* II. *p.* 399. *Blyth, Cat. B. Mus. A. S. Beng. App. p.* 319.

Rhyticeros plicatus, *Reichenbach, Syst. Av.*

Calao plicatus, *Bonap., C. G. Av. p.* 90.

Buceros obscurus, *Gmelin, S. N.* I. *p.* 362.

Buceros undulatus, *Shaw, Zool.* VIII. *p.* 26. (*Le Vaill., Ois. d'Amér. et Ind. tt.* 20, 21, ♀.) *Horsfield, Trans. Linn. Soc.* XIII. *p.* 175. *Vigors, Mem. Raffles, p.* 666.

Buceros javanicus, *Shaw, Zool.* VIII. *p.* 28. (*Le Vaill., Ois. d'Amér. et Ind. t.* 22, *jun.*)

Buceros javanus, *Vieillot.*

Buceros niger, *Vieillot.*

Buceros annulatus, *Drapiez.*

Buceros Pusaran, *Raffles, Trans. Linn. Soc.* XIII. *p.* 293 (1822). *Blyth, J. A. S. Beng.* XII. *p.* 990; XVI. *p.* 998; *Cat. B. Mus. A. S. Beng. p.* 45.

Buceros ruficollis, *apud Blyth, J. A. S. Beng.* XII. *p.* 176.

Wreathed Hornbill, *Lath., Gen. Syn.* I. *p.* 358.

Goge or Bobosan, Java, *Horsfield.*

A. ♂. Malacca. From Griffith's Collection.

B. ♀, and Drawing of Adult and Young. Java. From Dr. Horsfield's Collection.

*c. d. e.* ♂. Adult and Young. Pinang. Presented by Dr. Cantor.

*f.* ♂. Drawing. From Dr. Wallich's Collection.

Distinguished from *R. subruficollis* by its superior size, the flatness of its casque, and the lateral transverse ridges of the basal portion of the bill itself; these last being constantly absent in the other, which has likewise the casque much more elevate, or convex. "In the full-grown young of *R. plicatus*," remarks Mr. Blyth, "these lateral ridges of the bill do not appear till after three or four corrugations are exhibited on the casque; prior to which the bill much resembles that of *A. nipalensis* of corresponding age, except that the bulge in place of the casque is more decided."

"This species is very abundant in the extensive forests of the province of Blambangan, at the eastern extremity of Java. The nest is made in hollow trees, and is so constructed as completely to confine the female, leaving only an aperture for the protrusion of the bill. During the period of incubation, the female is fed by the

male, and is not allowed to leave the eggs. According to the report of the natives, the male exhibits an uncommon degree of watchfulness and jealousy, and it is called, by distinction, '*Burong Chimburuan*, or the Jealous Bird.' If, during his absence, any traces appear of the nest having been approached by another male, the aperture is completely closed with mud, and the imprisoned female is left to perish. This fact, which was first communicated to me in Blambangan, was subsequently confirmed by intelligent natives in other parts of Java."—(Horsfield's MS., 1806.)

Dr. Cantor states, that "the male has the bill [yellowish] white; iris pale crimson; gular pouch rich gamboge-yellow, with two transverse black bars; feet blackish: and the female has the iris narrow, golden round the pupil, the rest golden vandyke; eyelids brick-colour; pouch dirty azure, with two transverse black bars; feet blackish-grey. The young male has the iris mother-o'pearl colour; bill yellow at the point, and bluish-green at the base; space round the eyes, and pouch, yellow, with the transverse black bars indistinct; feet bluish-black."

### 883. *RHYTICEROS SUBRUFICOLLIS*, *Blyth.*

Buceros subruficollis, *Blyth, J. A. S. Beng.* XII. *p.* 177 (1843); *Cat. B. Mus. A. S. Beng. App. p.* 320.

Buceros plicatus, *apud Blyth, J. A. S. Beng.* XII. *p.* 991; XVI. *p.* 998; *Cat. B. Mus. A. S. Beng. p.* 45.

*a. b. c.* ♂ ♀. Tenasserim. From Helfer's Collection.

*d.* ♀. Tenasserim. From the Asiatic Society of Bengal.

"Entirely resembles *R. plicatus* in its plumage, having the sides of the head and neck (*in the male*) more or less deeply tinged with golden saffron; but the size is much inferior, though the wings and tail being proportionally longer, the difference in actual admeasurements is not great, though that of the weight would be considerable; the casque is also much more elevate and highly convex, instead of being flattened above; there are also no lateral transverse ridges at the basal part of the mandibles, which is a further distinction from *R. plicatus*."

"The naked skin of the throat and around the eyes is of a beautiful blue, instead of yellow, as in *R. plicatus*."—(Rev. J. Barbe, J. A. S. Beng. X. p. 922.)

Length about 32 in., of wing 16½ in., tail 9½ in., bill to gape 6½ in., and with its casque nearly 3 in. high, of which the latter occupies a

full inch; it is also broad behind, becoming gradually narrower to the front; whereas that of *R. plicatus* is much more uniform in its breadth throughout. Female with the head and neck also black, and smaller in size.

"In a series of specimens before me, the curious fact of the successive advance forward of the ridges of the casque, in consequence of the growth from behind, is particularly manifest. In none of these specimens does the number of transverse ridges exceed seven, and it is obviously apparent, upon inspection of the series of specimens, that these ridges are thus pushed forward till they finally scale off anteriorly, while others are continually in process of formation behind; also that in young birds they are individually much larger and thinner in substance, becoming narrower and closer by degrees."

"Inhabits Arracan and the Tenasserim provinces; in the latter, the Rev. J. Barbe states that both this species and *R. plicatus* are very common, associating in flocks of a dozen or twenty birds, but the two species *do not* mingle in the *same* flock."—(Blyth.)

Genus Aceros, *Hodgson, Gray's Zool. Misc. p.* 85 (1844).

884. *ACEROS NIPALENSIS, Hodgson.*

Buceros nipalensis, *Hodgson, Calcutta Gleanings in Sci.* I. *p.* 249 (1829); *Asiatic Res.* XVIII. *pt.* 1, *p.* 176, *t.* ♀; *P. Z. S.* (1832), *p.* 15; *Cat. B. of Nepal, p.* 112. *Blyth, J. A. S. Beng.* XI. *p.* 970; XII. *p.* 989; XVI. *p.* 997; *Cat. B. Mus. A. S. Beng. p.* 45. *G. R. Gray, Gen. of B.* II. *p.* 400, *t.* 99, ♂.

Aceros nipalensis, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 85.

Calao nipalensis, *Bonap., C. G. Av. p.* 90.

A. B. ♂ ♀. Darjeeling. From Pearson's Collection.

*c. d. e.* ♂, ♀, and young ♂. Nepal. Presented by B. H. Hodgson, Esq.

"Inhabits the S. E. Himalaya, also the hill-ranges of Assam and Munipur."—(Blyth.)

"Tenants the deep woods, covering the hills which overhang the great saul-forest. Its more peculiar haunts are the largest trees, especially such as are decaying, the trunks of which it perforates from the side, making its abode within upon the solid wood, and having its mansion further secreted by an ingeniously-contrived door, so that it is difficultly found, and more difficultly taken. I am told it

pairs, and is not gregarious. It cannot walk; but advances on foot forwards and sideways, by hops, like a Crow or Magpie. Its flight is horizontal and heavy, with neck retracted, and tail dropped. The voice of the mature bird is usually a short hoarse croak; but when angry or alarmed, it utters a cry not unlike a dog's bark. If left alone, it seldom speaks; but when once excited to utterance, is most pertinaciously noisy.

The figure of the bird is infinitely various in different attitudes. The familiar posture is a squat, with the neck-feathers ruffled out, the neck retracted with the high shoulders of the wings, and the tail frequently erected like a Magpie's, at other times, dropped; and in this attitude the bird has a very stupid and clumsy appearance. When it raises itself on its feet, puts its neck partially forth, closes its neck-plumes, and drops its tail, the outline of the body is long, narrow, and not unpleasing. But to see this bird to advantage, mark it when dressing its plumage, with the fine shoulders of the wings projected, the strong nervous legs exposed to view, and the flexible neck extended and arched backwards: its figure has then some of the graces, and even terrors, of the nobler birds of prey. Its disposition is placid and tranquil; but it is not, therefore, deficient in spirit, and when a captive and caged, though it hates, it fears not, the approach of dogs, and to man's approach is quite indifferent. It is easily tamed, both from its confidence and quiet habits. After much inquiry, I gather that this species feeds chiefly upon fruits, but, when urged by hunger, does not refrain from various kinds of reptiles. Judging by the structure of its bill, legs, and claws, one should conclude that it is not raptorial, even in the meanest sense; and its perfect freedom from all offensive odour, as well as the excellency of the flesh (which is much esteemed by the mountaineers for the table), seems to go far towards proving that it is almost exclusively frugivorous. Nevertheless, it cannot be denied that, in the tame state, it will eat meat (either raw or dressed) with as much apparent relish as fruit. A specimen (female) which I kept in confinement was fed principally with boiled rice, mixed with ghee, and made up into large balls; water it never touches. The throat is very wide, and the swallowing powers prodigious. Whatever is offered to the bird as food, is gulped entire, after being rubbed more or less, according to the exigency, between the huge mandibles; and if not capable of being thus disposed of, it is rejected. As a consequence of this mode of feeding, the bird is apt to be incommoded by its food after it has reached the upper stomach; in which case, the

substance swallowed is immediately and easily regorged into the bill, rubbed a little more, and swallowed again. The discomposed wiry feathers of the head and neck, which are rather longer than the rest, form a sort of pendent ruff, that is capable of partial erection at the bird's pleasure. The inner margins of the bill are, by nature, united and entire, but with their edges cut out, and interlocked towards the base; and so they continue to be in the oldest birds. Towards the tip, the inner margins are, in old birds, much and irregularly broken, and separated by hard use, and the ridge also is broken by similar means. The naked skin round the eyes and base of the bill is of a velvety softness, and of a rich light-blue; the bag depending from the throat, which is of the size of a fowl's egg, is bright scarlet; this the bird fills and empties at will, but never changes its colour. The legs are so placed in the body, that the bird, in perching, grasps somewhat obliquely.

A young specimen was taken in the beginning of August, and was then tolerably well-grown and well-fledged, having the wiry feathers of the head, neck, and body beneath, dingy red; tail entirely white, save at either extremity, where was a margin of black; iris of eye greenish-white; bill unribbed on the upper mandible, and with the green tinge stronger than in the old bird; inner edges of the bill quite smooth and united; naked skin round the eyes, and base of bill, and bag beneath the chin, wanting the fine colours of maturity. Voice like the clucking of a brood-hen, falling now and then into the shriller, more homophonous note of the guinea-fowl; in other respects, like the mature bird. Now, in the middle of November, the following changes have taken place: the bill less green; the first rib of the upper mandible developed; the naked skin at the base of bill, and bag beneath, taking rapidly the fine hues of maturity; the basal third, and more of the tail, black; and the tip no longer black; the dingy red of the body beneath darkened a good deal on the thighs and vent; the voice hoarser, and like the mature birds; the inner margins of the bill still perfectly entire.

The skinned carcase of an adult [female] measured from first to last joint of neck 8 in., from last joint of neck to end of rump 9 in." —(Hodgson.)

Mr. Blyth states, that "the young of both sexes of this species resemble the mature male."

## Fam. V. MUSOPHAGIDÆ, *Swainson.*

### Subfam. II. MUSOPHAGINA.

Genus Turacus, *Cuvier, Anat. Comp.* (1799-1800).
Touraco, *Lacépède, Mém. Instit.* (1800-1801).
Corythaix, *Illiger, Prod.* (1811).
Opaethus, *Vieillot, Analyse* (1816).
Spelectos, *Wagler, Syst. Av.* (1827).
Gallirex, *Lesson* (1844).

885. *TURACUS ALBOCRISTATUS, Strickland.*

Turacus albocristatus, *Strickland. G. R. Gray, Gen. of B.* II. *p.* 395. *Bonap., C. G. Av. p.* 87.
Opaethus Persa, *Vieillot.* (*Pl. Enl.* 601.)
Corythaix Persa, *Lesson.*
Spelectos Corythaix, *Wagler, Syst. Av. sp.* 1.

A. B. Cape of Good Hope. From Dr. Horsfield.

886. *TURACUS LEUCOTIS, Rüppell Sp.*

Corythaix leucotis, *Rüppell, Faun. Abyss. Av. p.* 8, *t.* 3.
Turacus leucotis, *Rüppell, Syst. Uebers. p.* 80. *G. R. Gray, Gen. of B.* II. *p.* 395. *Bonap., C. G. Av. p.* 87.
Corythaix leucotis, *Bonaparte* (1854).
Sorit, Abyssinia, *Dr. Roth.*

A. B. ♂ ♀. Abyssinia. From Sir W. Harris's Collection.

"Colour of the bill blood-red, on the margins yellowish; eyelids red, with many fleshy excrescences; legs dark. These birds inhabit the high trees in the forests near Ankober, also in the lower countries of Efat. They feed on grain of various kinds."—(Dr. Roth's MS. Notes.)

Genus Schizorhis, *Wagler* (1829).
Chizærhis, *Wagler, Syst. Av.* (1827).
Ichthierax, *Kaup* (1844).

887. *SCHIZORHIS LEUCOGASTRA, Rüppell.*

Chizaerhis leucogaster, *Rüppell, P. Z. S.* (1842), *p.* 9;

*id. Trans. Zool. Soc.* III. *p.* 232, *t.* 17; *Syst. Uebers. p.* 80. *Blyth, J. A. S. Beng.* XXIV. *p.* 299 (1855).

Schizorhis leucogastra, *G. R. Gray, Gen. of B.* II. *p.* 395. *Bonap., C. G. Av. p.* 88.

Gobiyan and Fát, Somáli, *Lieut. Burton.*

A. *b.* ♂. Abyssinia. From Sir W. Harris's Collection.

"Called in some parts of the Somáli country *Gobiyan*, and in others *Fát*. It is a noisy bird, with a loud cry, and has all the cunning of a Magpie when pursued. It is fond of the thick trees on the banks of the ravines. The Arabs call this bird *Kakatua*, and consider it a species of Parrot."—(Lieut. Burton.)

888. *SCHIZORHIS PERSONATA, Rüppell.*

Chizaerhis personata, *Rüppell, P. Z. S.* (1842), *p.* 8; *Trans. Zool. Soc.* III. *p.* 232, *t.* 16; *Syst. Uebers. p.* 80.

Schizorhis personata, *G. R. Gray, Gen. of B.* II. *p.* 395. *Bonap., C. G. Av. p.* 88.

A. Abyssinia. From Sir W. Harris's Collection.

"Naked space about the eyes, cheeks, and throat, black, with a few short hair-like feathers; bill and feet black."—(Dr. Roth's MS. Notes.)

Subfam. III. COLIINA.

Genus Colius, *Brisson, Orn.* III. *p.* 304 (1760).

Urocolius et Rhabdocolius, *Bonaparte* (1854).

889. *COLIUS STRIATUS, Gmelin.*

Colius striatus, *Gmelin, S. N.* I. *p.* 843. (*Sonn., Voy. t.* 74. *Le Vaill., Ois. d'Afr. t.* 256.) *Lath., Hist. of B.* V. *p.* 201. *G. R. Gray, Gen. of B.* II. *p.* 393. *Blyth, Cat. B. Mus. A. S. Beng. p.* 70. *Bonap., C. G. Av. p.* 86.

Rhabdocolius striatus, *Bonaparte* (1854).

The Striated Coly.

A. B. C. ♂ ♀. Cape of Good Hope. From Dr. Horsfield.

890. *COLIUS MACROURUS*, *Linn. Sp.*

Lanius macrourus, *Linn.*, *S. N.* I. *p.* 134.

Colius macrourus, *G. R. Gray*, *Gen. of B.* II. *p.* 393, *t.* 96. *Blyth*, *Cat. B. Mus. A. S. Beng. p.* 70.

Urocolius macrourus, *Bonaparte* (1854).

Colius senegalensis, *Gmel.*, *S. N.* I. *p.* 842. *Vieill.*, *Gal. des Ois. t.* 51. *Lath.*, *Hist. of B.* V. *p.* 198. *Bonap.*, *C. G. Av. p.* 86.

The Senegal Coly, *Latham.*

A. ♂. Abyssinia. From Sir W. Harris's Collection.

"The birds of this genus are peculiar to the continent of Africa, where they are usually observed in parties on the trees, among the branches of which they are seen quickly hopping from one to another in search of the fruits and freshly-formed buds on which they subsist. Their flight consists of little more than flitting from one tree to another; and they have a peculiar habit of suspending themselves by one foot attached to the branch, with the head hanging downwards. They are rarely observed on the ground, as the formation of their foot does not admit of their walking with ease. They form their nests in society, closely packed together on the same tree or bush, and are composed of flexible twigs, lined with feathers; the female depositing from four to six eggs."—(Gray's Gen. of Birds.)

## TRIBE IV. SCANSORES, *Cuvier.*

### Fam. I. PSITTACIDÆ, *Leach.*

#### Subfam. I. CACATUINA.

Genus Cacatua, *Brisson, Orn.* IV. (1760).
Kakatoe, *Cuvier* (1799).

891. *CACATUA SULPHUREA, Gmelin Sp.*

Psittacus sulphureus, *Gmel., S. N.* I. *p.* 330. (*Edwards, Birds, t.* 317. *Pl. Enl.* 14.) *Lath., Hist. of B.* II. *p.* 206.

Cacatua sulphurea, *G. R. Gray, Gen. of B.* II. *p.* 425. *Blyth, Cat. B. Mus. A. S. Beng. p.* 2.

Plyctolophus sulphureus, *Lear's Psitt. t.* 4. *Bonap., Rev. Zool.* (1854), *p.* 155.

Cacatua luteocristata, *Brisson, Orn.* IV. *p.* 206.

Lesser Sulphur-crested Cockatoo.

Chota Champa, Bengal, *Blyth.*

A. Moluccas. From Finlayson's Collection.

#### Subfam. II. PSITTACINA, *Vigors.*

Genus Pœocephalus, *Swainson* (1837).

892. *PŒOCEPHALUS RUFIVENTRIS, Rüppell.*

Pœocephalus rufiventris, *Bonap., Rev. Zool.* (1854), *p.* 154.

Pionus rufiventris, *Rüppell, Syst. Uebers. pp.* 83, 94, *t.* 32 (1845).

Psittacus rufiventris, *G. R. Gray, Gen. of B.* III. *App. p.* 20.

A. *b. c. d.* ♂ ♀. Abyssinia. From Sir W. Harris's Collection.

Genus Psittacula, *Brisson Orn.* (1760).

893. *PSITTACULA TARANTA, Stanley Sp.*

Psittacus Taranta, *Stanley, Salt's Travels in Abyss. App.*

*p.* 46, *t.* 55. *Lear's Psitt. t.* 39. *Bourj. St. Hill. Perr. t.* 99.

Psittacula Taranta, *G. R. Gray, Gen. of B.* II. *p.* 423.

Agapornis Taranta, *Bonap., Rev. Zool.* (1854), *p.* 154.

Donkoro, Abyssinia, *Roth.*

The Abyssinian Parrakeet, *Stanley.*

A. ♂. Abyssinia. From Sir W. Harris's Collection.

"Numerous in Abyssinia about the pass of Taranta."—(Salt's Travels.)

"Feeds on grain and the fruit of the sycamore."—(Dr. Roth's MS. Notes.)

Genus Tanygnathus, *Wagler, Abhandl. Akad. München* (1832), *p.* 501.

Erythrostomus, *Swains., Classif. of B. p.* 300 (1837).

894. *TANYGNATHUS SUMATRANUS, Raffles Sp.*

Psittacus sumatranus, *Raffles, Trans. Linn. Soc.* XIII. *p.* 281 (1822).

Tanygnathus sumatranus, *Blyth, Cat. B. Mus. A. S. Beng. App. p.* iii. *Bonap., Rev. Zool.* (1854), *p.* 155.

Eclectus sumatranus, *G. R. Gray, Gen. of Birds,* II. *p.* 418.

Keke, Sumatra, *Raffles.*

*a.* Drawing (type). Sumatra. From Raffles's Collection.

Genus Psittinus, *Blyth, J. A. S. Beng.* XI. *p.* 789 (1842).

895. *PSITTINUS MALACCENSIS, Latham Sp.*

Psittacus malaccensis,* *Lath., Ind. Orn.* I. *p.* 130 (1790); *Gen. Hist. of B.* II. *p.* 263. *Raffles, Trans. Linn. Soc.* XIII. *p.* 231. *Swains., Zool. Ill.* 1*st ser. t.* 154. *Bourj. St. Hill. Perr. t.* 92.

Psittinus malaccensis, *Blyth, J. A. S. Beng.* XI. *p.* 789. *Bonap., Rev. Zool.* (1854), *p.* 153.

Tanygnathus malaccensis, *Blyth, Cat. B. Mus. A. S. Beng. p.* 3; *J. A. S. Beng.* XIX. *p.* 235.

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* *Nec.* Gmelin.

Psittacus incertus, *Shaw, Nat. Misc. t.* 769. *Lath., Hist. of B.* II. *p.* 278.

Psittacula incerta, *G. R. Gray, Gen. of B.* III. *App.* 30*c*.

Agapornis azureus (*Temm.*). *Bonap., C. G. Av. p.* 6.

Blue-rumped Parrakeet, *Latham.*

Blue-green Parrot, *Shaw.*

Tanou or Pialling, Sumatra, *Raffles.*

Tana, Malayan, *Blyth.*

*a*. ♂. Drawing. Sumatra. From Raffles's Collection.

*b*. ♂. Tenasserim. From Helfer's Collection.

*c*. ♀. *d*. Young. Pinang. Presented by Dr. Cantor.

*e*. *f*. ♂ ♀. Malacca. From Griffith's Collection.

The *male* of this species has the crown, rump, and upper tail-coverts bright purplish smalt-blue, passing into greyish on the nape, and then to greyish-dusky on the back; under-parts yellowish-olivaceous, the mesial portion being tinged with brownish-ruddy and edged with bluish; lower tail-coverts yellowish-green, tipped with blue; tibial plumes mingled blue and green; uropygials deep green; and the rest of the tail-feathers yellow, more or less green-edged; wing-feathers deep green, margined with yellowish on the coverts, except those of the primaries, secondaries, tertiaries, speculars, and shoulder of wing, which are bluish or purple; extreme edge of shoulder yellowish-green; wing-spot marrone, and the coverts underneath the wing and axillaries crimson. The *female* has the crown greenish-marrone, on the forehead lighter and bluish, and passing on the nape to the deep green of the back; the blue of the rump and upper tail-coverts is tinged with bright green; sides of face intermixed yellowish-marrone; throat greenish-yellowish; under-parts light-green; wing, wing-spot, under wing-coverts, and axillaries as in male. Young lighter green, yellowish beneath, and more broadly margined with yellow on the wings; forehead and rump bluish; upper tail-coverts bright green; wing-spot, under wing-coverts, and axillaries as in adults. The upper mandible in the male is bright coral, paler at tip; the under mandible dusky; ditto in female lighter, and in young yellowish-white; and, according to Dr. Cantor's Notes, has the "inner ring of the iris greenish, outer one pale yellow; feet dark green."

"Very rare in the Tenasserim provinces; only in the southernmost parts."—(Helfer.)

Subfam. III. PALÆORNINA, *Vigors.*

Genus Palæornis, *Vigors, Zool. Journ.* II. *p.* 47 (1825).

Belocercus, *Müller et Schlegel* (1849 ?).

Belurus, *Bonap., Rev. Zool.* (1854), *p.* 152.

896. *PALÆORNIS ALEXANDRI, Linn. Sp.*

Psittacus Alexandri, *Linn., S. N.* I. *p.* 141. (*Pl. Enl.* 642. *Le Vaill., Perr. t.* 30. *Edwards, B. t.* 292.) *Lath., Hist. of B.* II. *p.* 159. *Kuhl, Monog. Psitt. No.* 35.

Palæornis Alexandri, *Vigors, Zool. Journ.* II. *p.* 49. *Selby, Nat. Libr. Psitt. p.* 72, *t.* 2. *Jerdon, Madr. Journ.* XI. *p.* 208. *Blyth, Ann. Nat. Hist.* XII. *p.* 90. *G. R. Gray, Gen. of B. p.* 409. *Hodgs., Cat. B. of Nep. p.* 112. *Blyth, Cat. B. Mus. A. S. Beng. p.* 4; *J. A. S. Beng.* XIX. *p.* 230. *Bonap., C. G. Av. p.* 2; *id. Rev. Zool.* (1854), *p.* 152. *Layard, Ann. Nat. Hist.* XIII. *n. s. p.* 262. *Souancé, Rev. Zool.* (1856), *p.* 157.

Psittacus eupatria, *Linn., S. N.* I. *p.* 140. (*Le Vaill., Perr. t.* 73. *Pl. Enl.* 239.) *Lath., Hist. of B.* II. *p.* 113, ♀.

Psittaca ginginiana, *Brisson, Orn.* IV. *p.* 343, ♀.

Psittacus guinneensis, *Scopoli* (*nec.* guineensis, *Gmel.*).

Psittacus Sonneratii, *Gmel., S. N.* I. *p.* 324. (*Sonn., Voy. t.* 43.) *Lath., Hist. of B.* II. *p.* 161.

Palæornis nipalensis, *Hodgs., As. Res.* XIX. *p.* 177 (1836); *Gray's Zool. Misc.* (1844), *p.* 85.

The Alexandrine Ring-necked Parrakeet.

Alexandrine Parrakeet, *Shaw.*

Gingi Parrot, *Latham.*

Chandana ('*sandal-wood coloured*,' alluding to the yellowish tinge of the under-parts and upper portion of the back), Bengal, *Blyth.*

Chanda-ban-i, Masuri, *Hutton.*

Karan Suga and Kararia, Nepal, *Hodgson.*

Ráee Totah ('Royal Parrakeet'), Hind., *Jerdon.*

Kyai Phoungkha, Arracan, *Phayre.*
Laboo Girawa, Ceylon, *Layard.*

A. B. ♂. Bengal. From the Asiatic Society of Bengal.
*c.* ♂. Nepal. Presented by B. H. Hodgson, Esq.
*d.* ♂. Kumaon. From Captain R. Strachey's Collection.
*e.* ♀. Bootan. From Pemberton's Collection.
*f.* ♀. Tenasserim. From Helfer's Collection.
*g.* ♂. Drawing. From F. (B.) Hamilton's Collection.

"Inhabits the hilly regions of all India proper, from the Sub-Himalayas to Ceylon inclusive, Assam, Sylhet, Arracan, and the Tenasserim provinces."—(Blyth.)

"This species is much more common in the peninsula of India than the next. The first time I became aware of its being found here was seeing one carried off in an open space in the jungles of Malabar by a Shaheer (*Falco Aldrovandi*), which dropped it on my firing at it. I have also seen it once or twice in the neighbourhood of well-wooded villages, in the northern part of the table-land, and obtained four young ones from the nest, in a hole of a lofty tree, in December. It breeds during the cold season."—(Jerdon.)

In Ceylon, this "is found in countless thousands at Batticaloa, nestling in the cocoa-nut trees, and resorting to them by night in vast flocks. I also found it near Matelle in the central province, and I shot a single bird at Gillymalle. The natives tell me they breed in hollow trees, and lay two round white eggs. The young are much sought after to rear as pets, and they are taught to speak many native words with great distinctness."—(Layard.)

## 897. *PALÆORNIS TORQUATUS, Brisson Sp.*

Psittaca torquata, *Brisson, Orn.* IV. *p.* 323 (1760). (*Pl. Enl.* 551. *Le Vaill., Perr. tt.* 22, 23, 39, 42, 43.)

Palæornis torquatus, *Vigors, Zool. Journ.* II. *p.* 50. *Sykes, P. Z. S.* (1832), *p.* 96. *Lear, Psitt. t.* 33. *Sundevall, Physiogr. Sällsk. Tidsk. McClelland, P. Z. S.* (1839), *p.* 165. *Jerdon, Madr. Journ.* XI. *p.* 207. *G. R. Gray, Gen. of B.* II. *p.* 409. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85; *Cat. B. of Nep. p.* 113. *Blyth, Ann. Nat. Hist.* XII. *p.* 90; *Cat. B. Mus. A. S. Beng. p.* 4; *J. A. S.*

*Beng.* XIX. *p.* 231. *Bonap., Rev. Zool.* (1854), *p.* 152. *Layard, Ann. Nat. Hist. n. s.* XIII. *p.* 262. *Burgess, P. Z. S.* (1854), *p.* 256. *Souancé, Rev. Zool.* (1856), *p.* 157.

Psittacus torquatus, *Kuhl, Monog. Psitt. No.* 34.

Psittacus cubicularis, *Hasselquist. Wagler.*

Psittacus docilis, *Vieillot.*

Psittacus streptophorus, *Desmarest.*

Psittacus Alexandri, var. *β*, *Latham.*

Sulphur Parrakeet, *Shaw, Zool.* VIII. *p.* 428. (*Le Vaill., Perr. t.* 43), *variety.*

The Rose-ringed Parrakeet, *Latham.*

Tiya (or Teeah, imitative of voice), Hind., *Blyth.*

Gallar, of some, Hind., *Phillips.*

Tent'hia Suga, Nepal, *Hodgson.*

Lybar, Masuri, *Hutton.*

Ragoo and Keeruh, Mahrattas, *Sykes.*

Lybar Totah, S. India, *Jerdon.*

Kyai-gyot, Arracan, *Phayre.*

A. B. ♂ ♀. Dukhun. Presented by Colonel Sykes.

*c. d.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

*e.* ♂. Shikarpore. From Griffith's Collection.

*f.* ♂. Scinde. Presented by Dr. H. Gould, 1855.

*g.* ♂. Pinang. Presented by Dr. Cantor.

"Appears in considerable flocks in Dukhun, and are very destructive to the crops, particularly to the *Carthamus persicus;* they are also fond of the fruit of the *Melia azadirachta.*"—(Sykes.)

"Lays four round ovate-pyriform pure white eggs, in holes in trees, walls, and steep banks; size $\frac{1 \cdot 2}{1 \cdot 0}\frac{5}{5}$. May 3rd."—(W. Theobald, Jun., Esq., J. A. S. Beng. XXIII. p. 596.)

"This Parrakeet breeds during the month of March, in holes in buildings and trees, laying three or four eggs, of a pure white colour, $1\frac{3}{10}$ in. in length by 1 in. in width."—(Lieutenant Burgess.)

In Ceylon, it is "exceedingly abundant at Chilaw, on the western coast, and northward to Jaffna, and round by Mulletivoe to Trincomalie, on the east coast, and in the interior of the island likewise. At Chilaw, I have seen it in such vast flights coming to roost in the

cocoa-nut trees which overhang the native bazaar, that their noise quite drowned the Babel of native tongues engaged in bargaining for the evening provisions.

Hearing of the swarms which resorted to the spot, I posted myself on a bridge some half a mile away, and attempted to count the flocks that came from one direction, eastward, over the jungle. About five o'clock in the afternoon, straggling bodies began to wing their way homeward, but many of them came back again to pick up the scattered grains left on the fields near the village: about half-past five, however, the tide fairly set in, and I soon found I had no flocks to count,—it was one living, screaming stream. Some, high in air, winged their way till over their homes, when, with a scream, they suddenly dived downwards, with many evolutions, until on a level with the trees; others flew along the ground, rapid and noiselessly; now darting under the pendent boughs of some mango, or other solitary tree; now skimming over the bridge close to my face with the rapidity of thought, their brilliant green plumage shining in the setting sunlight with a lovely lustre. I waited at this spot till the evening closed in, and then took my gun and went to the cocoa-nut tope which covered the bazaar. I could hear, though, from the darkness, I could not distinguish, the birds fighting for their perches; and, on firing a shot, they rose with a noise like the rushing of a mighty wind, but soon settled again; and such a din commenced as I shall never forget. The shrill screams of the birds, the fluttering of wings innumerable, and the rustling of the glazed leaves of the cocoa-nut trees, mingled with the gabbling of the natives below, quite stunned me; and I was glad to escape to the path by the river's side which led to the Government rest-house, where I was stopping.

It breeds in hollow trees, making little or no nest, and laying three, or sometimes four, pure white eggs, weighing 11 3. 16 grs. Axis 14 lines, diameter 11 lines. It feeds on grain of all kinds, fruits, chillies, plantains, &c. It is easily domesticated, becomes very attached and familiar, and is usually seen in most native and European houses."—(E. L. Layard.)

*Remark.*—"This is the only Indian Parrot, so far as we are aware," says Mr. Blyth, "that affects the vicinity of human habitations; flocks of them often settling upon buildings, especially if situate in gardens with trees about them, and one or more pairs occasionally breeding in suitable cavities about buildings. It is the only species observed wild in the densely-populous neighbourhood

of Calcutta; but in jungle districts becomes replaced by *P. cyanocephalus*."

"This Parrakeet is one of the most common birds in India, frequenting the cultivated ground and gardens in all parts of the country, even the most bare and open. It is very destructive to various kinds of grain and fruit. It associates in flocks of various size, sometimes very numerous, roosting in the holes of old trees, and flying forth to their various feeding-haunts early in the morning. When the grains are cut and fruit is scarce, it often takes long flights in search of any fruit-bearing trees, skimming close to the large trees, and when successful in its search, in general not alighting suddenly, but taking a short circle, and changing its usual mode of flight, viz., a swift and continued flapping of their wings, to a steady sailing, with wings spread and turned obliquely downwards; and thus, alighting on the tree, speedily commences its meal. Its flight is very swift, and it generally keeps up a harsh scream when in motion; it is, however, at all times, a noisy bird. It breeds in holes of trees during the hot weather, laying, as I am credibly informed, three or four white eggs."—(Jerdon.)

898. *PALÆORNIS COLUMBOIDES*, *Vigors.*

Palæornis columboides, *Vigors, Zool. Journ.* (1830), *p.* 274. *Lear, Psitt. t.* 31. *Bourj. St. Hill. Perr. tt.* 3, 3*a*. *Jerdon, Madr. Journ.* XI. *p.* 209, *t.* 3; *Illust. Ind. Orn. t.* 18. *G. R. Gray, Gen. of B.* II. *p.* 410. *Blyth, J. A. S. Beng.* XVI. *p.* 475; XIX. *p.* 204; *Cat. B. Mus. A. S. Beng. p.* 5. *Bonap., Rev. Zool.* (1854), *p.* 152. *Souancé, Rev. Zool.* (1856), *p.* 158.

Psittacus melanorhynchus, *Sykes, P. Z. S.* (1832), *p.* 96 (*the female*).

Blue-winged Parrakeet, *Jerdon.*

Mad-an-Gowr Totah, Hind., *Jerdon.*

A. ♂. Madras. From Wight's Collection.

B. ♀. Dukhun. (*P. melanorhynchus*, Sykes.) Presented by Colonel Sykes.

"I first procured this elegant-coloured Parrakeet at Trichoor, and afterwards in various other localities on the west coast, and on the sides of the Neilgherries, up to a height of 5,000 feet. It probably extends along the range of Western Ghauts for some distance. It

keeps entirely to the depths of the forests, and frequents only the loftiest trees. Its flight is very rapid and elegant, and it associates in small flocks. Its cry, though similar in character to the harsh call of the common Parrakeet, is much more mellow, subdued, and agreeable. It feeds on fruit and berries of various kinds."—(Jerdon.)

899. *PALÆORNIS SCHISTICEPS, Hodgson.*

Palæornis schisticeps, *Hodgs.*, *As. Res.* XIX. *p.* 178 (1836); *Gray's Zool. Misc.* (1844), *p.* 85; *Cat. B. of Nep. p.* 113. *Blyth, J. A. S. Beng.* X. *p.* 925; XIX. *p.* 232; *Cat. B. Mus. A. S. Beng. p.* 5. *Bonap., Rev. Zool.* (1854), *p.* 152. *Souancé, Rev. Zool.* (1856), *p.* 159.

? Conurus himalayanus, *Less.*, *Belanger's Voy. Zool. p.* 239 (1834).

The Slaty-headed Parrakeet, *Hodgson.*

Madhana Suga, Nepal, *Hodgson.*

Puhari Tuiya ('Mountain Tuiya'), Masuri, *Hutton.*

Gagi of Calcutta bird-dealers, *Blyth.*

*a. b.* ♂ ♀ (type). Nepal. Presented by B. H. Hodgson, Esq.

C. D. ♂. Bengal. From Bax's Collection.

*e. f.* ♂ ♀. Olipore and Pushut. From Griffith's Collection.

*g.* Young. Bootan. From Pemberton's Collection.

Head dull lavender-colour, or slaty-blue; chin and narrow band bordering the lavender-colour, black. General colour of the upper parts vivid green, a little paler beneath, and tinged about the nape and under wing-coverts with verditer; a marrone wing-spot; tail wholly yellow beneath, the two middle tail-feathers green above, near the base, then bright blue, and the terminal third yellow; the other tail-feathers all yellow on the inner web and tip, having the rest of the outer web green; upper mandible yellow, tinged with coral-red; tip and lower mandible yellow. Length 16 in., of which the middle tail-feathers occupy $9\frac{1}{2}$ in., of wing $6\frac{1}{4}$ in., tarse $\frac{1}{4}$ in.

"The adult sexes differ, in the male having a small marrone spot on the wing, which is wanting, or barely indicated, in the female, and the black demi-collar is also rather more developed. The young have generally but a trace of the slaty-blue cap, but this is fully developed in some few specimens, though without the black demi-collar which borders the cap in the adult."—(Blyth.)

"Iris straw-colour; orbitar skin slaty; legs dusky green. Weight 4½ oz." The tomiæ of the bill are very scarpt, trenchant, and, as well as the hook, crenulated internally."—(Hodgson.)

"Observed in flocks at Pushut."—(Griffith's MS. Notes.)

900. *PALÆORNIS CYANOCEPHALUS*, *Linn. Sp.*

♀ Psittacus cyanocephalus, *Linn.*, *S. N.* I. *p.* 141. (*Edw.*, *B. t.* 292. *Pl. Enl.* 192.) *Lath.*, *Hist. of B.* II. *p.* 119. *Le Vaill.*, *Perr. tt.* 26, 61.

Palæornis cyanocephalus, *Blyth*, *Cat. B. Mus. A. S. Beng. p.* 5; *J. A. S. Beng.* XIX. *p.* 232. *Layard*, *Ann. Nat. Hist.* XIII. *p.* 264. *Bonap.*, *Rev. Zool.* (1854), *p.* 152. *Souancé*, *Rev. Zool.* (1856), *p.* 158.

♂ Psittaca bengalensis, *Briss.*, *Orn.* IV. *p.* 348 (1760). *Gmel.*, *S. N.* I. *p.* 325. (*Pl. Enl.* 888. *Sonnerat's Voy. t.* 42. *Le Vaill.*, *Perr. t.* 45. *Bourj. St. Hill. Perr. t.* 2.)

Palæornis bengalensis, *Vigors*, *Zool. Journ.* II. *p.* 54. *Jerd.*, *Madr. Journ.* XI. *p.* 208. *Blyth*, *Ann. Nat. Hist.* XII. *p.* 90. *G. R. Gray*, *Gen. of B.* II. *p.* 409. *Hodgs.*, *Cat. B. of Nep. p.* 113. *Burgess*, *P. Z. S.* (1854), *p.* 256.

♂ Psittacus erythrocephalus, *Gmel.*, *S. N.* I. *p.* 325. (*Pl. Enl.* 264.)

Palæornis erythrocephalus, *Vigors*, *Zool. Journ.* II. *p.* 53.

Psittacus ginginianus, *Lath.*, *Ind. Orn.* I. *p.* 99; *Gen. Hist. of B.* II. *p.* 164.

♂ Psittacus rhodocephalus, *Shaw*, *Zool.* VIII. *p.* 434.

Palæornis rhodocephalus, *Hodgs.*, *Gray's Zool. Misc.* (1844), *p.* 85.

♀ Psittacus flavitorquis, *Shaw*, *Zool.* VIII. *p.* 439. (*Le Vaill.*, *Perr. tt.* 75, 76.)

Palæornis flavitorquis, *Vigors*, *Zool. Journ.* II. *p.* 51.

♀ Psittacus annulatus, *Bechstein*, *Kuhl*, *Monog. Psitt. No.* 36.

♀ Palæornis flavicollaris, *Franklin*, *P. Z. S.* (1831), *p.* 120.

Psittacus narcissus, *Lath.*, *Syn. Suppl.* II. *p.* 83, *t.* 123 (*yellow variety*).

Rose-headed Ring Parrakeet, *Edwards, B. t.* 233.
Blue-headed Parrakeet, *Latham.*
Blossom-headed Parrakeet, *Latham.*
Jonquil Parrakeet, *Latham* (*yellow variety*).
Red-headed Ringed Parrakeet, *Jerdon.*
Plum-headed Parrakeet, *Jerdon.*
Faridi and Faraidi ('plaintive'), Bengal, *Blyth.*
Tui Suga, Nepal, *Hodgson.*
Tuia Totá, Hind., *Jerdon. Phillips.*
Bengali Totá, Punjab, *Blyth.*
Dasi Tuiya, Masuri, *Hutton.*
Kyai-ta-ma, Arracan, *Phayre.*
Malitchia and Battoogirawa, Ceylon, *Layard.*

A. ♂. China. From Reeves's Collection.
*b. c. d. e.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.
*f.* ♀. Himalaya. From Griffith's Collection.
*g.* Drawing. From F. (B.) Hamilton's Collection.
*h.* (Yellow variety.) Kumaon. Presented by Captain R. Strachey.

"Inhabits the upland and jungle regions of all India proper, Ceylon, Assam, Sylhet, Arracan, and the Tenasserim provinces. It occurs in open jungle in the Bengal Sundarbans. To the westward, leaving the alluvial soil of the Ganges, it seems entirely to take the place of *P. torquatus* in the Midnapur jungles.

It is also less noisy than *P. torquatus*, and I have always observed it in small flocks."—(Blyth.)

"This lovely species is never found in the open country, being a denizen of open jungles, and is also found in the clearer spaces of the denser jungles. I have seen it in Goomsoor; also from the jungles of the Tondiman's country, in the Carnatic; on the west coast, not uncommon; and even occasionally in low jungly districts in the Deccan. It has the same habits as others of the genus. Irides light yellow; bill reddish-yellow above, blackish beneath."—(Jerdon.)

"I have had many opportunities of watching and closely observing the habits of these handsome Parrakeets; the red head being the mark of an advanced, if not mature, plumage. In young birds, the plum-colour of the head is much mixed with green, the former

colour becoming decided as the birds grow older, and this again giving way to the red head-dress. I have met with these birds in the woody ravines and recesses amongst the lower ranges of hills in the Deccan, also in the thickly-wooded garden-land near the cantonments of Ahmednuggur; in this latter spot, I have often watched them, in the hope of securing one of the richly-coloured red-headed birds. They fly in flocks like *P. torquatus*, visiting the grain-fields, and carrying off the ears to the neighbouring trees. Their cry is not so loud and harsh as that of their larger brethren, and they may thus be distinguished when not seen. I scarcely ever saw more than two or three red-headed birds amongst a flock of plum-heads. I have not met with the nest or eggs, but from the very immature plumage of young birds which I shot in January, I should say they breed in November and December."—(Lieutenant Burgess.)

In Ceylon, it is "found throughout the island, except in the northern province. It is very commonly seen in confinement in the native houses, and is easily domesticated. Nestles in hollow trees; eggs four, pure white and rounded."—(Layard.)

It is stated in the Rev. T. Phillips's MS. Notes, that it "feeds on the fruit of the Peepul-tree."

901. *PALÆORNIS LONGICAUDA, Boddaërt Sp.*

Psittacus longicauda, *Bodd., Tabl. des Pl. Enl. d'Aub. p.* 53 (1783).

Palæornis longicauda, *G. R. Gray, Gen. of B.* II. *p.* 410.

Psittacus malaccensis, *Gmel., S. N.* I. *p.* 325 (1788). (*Pl. Enl.* 887. *Le Vaill., Perr. t.* 72. *Bourj. St. Hill. Perr. t.* 1.)

Belurus malaccensis, *Bonap., Rev. Zool.* (1854), *p.* 152.

Palæornis malaccensis, *Vigors, Zool. Journ.* II. *p.* 52. *Selby, Nat. Libr. Psitt. p.* 75, *t.* 3. *Blyth, J. A. S. Beng.* XI. *p.* 788; XIX. *p.* 233; *Cat. B. Mus. A. S. Beng. p.* 5. *Motl. and Dill., Nat. Hist. of Lab. p.* 26.

Psittacus erubescens, *Shaw, Zool.* VIII. *p.* 437 (1811). *Raffles, Trans. Linn. Soc.* XIII. *p.* 231.

Psittacus ginginianus, var. C, *Lath., Ind. Orn.* I. *p.* 99; *Gen. Hist. of B.* II. *p.* 165.

Psittacus barbatulatus, *Bechstein.*

Psittacus barbatulatus, *Kuhl, Monog. Psitt. No.* 38 (1820).

Belocercus barbatulatus, *Müller et Schlegel.*
Palæornis erythrogenys, *Less., Tr. d'Orn. p.* 215 (1831).
The Malayan Ring Parrakeet.
Blossom-cheeked Parrakeet, *Shaw.*
Burong Bayau, Sumatra, *Raffles.*
Madna Bhola of the Calcutta dealers, *Blyth.*

A. Malacca. Presented by General Thomas Hardwicke.
*b. c.* Pinang. *d. e.* Adult and young. Malacca. Presented by Dr. Cantor.
*f.* Drawing. From Raffles's Collection.

The young has the plumage yellowish-green, darkest on the crown, sides of throat, and palest beneath; wings above the same, and having the primaries, secondaries, portion of tertiaries, and speculars bluish on their outer webs, and the three former narrowly edged with yellowish; under wing-coverts and axillaries green; rump more bluish-green, and upper tail-coverts bright yellowish-green; tail bluish-green, and edged with yellowish-green, the latter beneath dingy, dusky yellowish-green; before the eye, slightly above, and broadly beneath, ferruginous, intermixed with greenish-yellow; upper mandible red, pale at tip, and the under one also pale. Length 8 in., of wing $5\frac{3}{8}$ in., tail 3 in., its outermost feather 1 in. less, tarsus $\frac{7}{10}$ in., outer fore toe $\frac{8}{10}$ in., ditto, with claw, $1\frac{1}{8}$ in.

Sir Stamford Raffles states, that "it is this Parrot that figures in the fables and poetry of the Malays, in which it is represented to be endowed with a supernatural degree of intelligence."

"These handsome Parrakeets are not uncommon in Labuan, and are to be seen in the early morning flying about above the tops of the trees in small flocks of six or eight, uttering in their flight a loud quick scream, very much like the note of the common Swift. They are particularly fond of the fruit of the *Dryabalanops camphora*, which they split open, and eat the curious crumpled cotyledons, in spite of their pungent taste and smell of turpentine. A specimen was shot while feeding upon the seeds of the *Dillenia speciosa*, a shrub about 10 or 15 feet high; and it is the only instance in which we have known them venture so near the ground. When first seen, he was busy opening the capsules of the plant and scraping out the seeds with his beak, never omitting to clip off at a single bite every one he emptied; having done this, he dropped himself under the twig he sat on, swinging by one leg to watch it fall; when it reached

the ground, he testified his satisfaction by a low chirp, and, giving himself a vigorous swing, caught the perch with his other foot, and walked gravely along to another capsule, not hopping, but placing one foot before the other in a most old-fashioned way. Another of these Parrakeets, which had been pinioned by a shot without being otherwise injured, was placed in a cage, where, soon finding his two long tail-feathers to be an incumbrance, he deliberately turned round, pulled them out, and then walked round the cage, evidently to try the effect of his contrivance."—(Messrs. Motley and Dillwyn, Nat. Hist. of Labuan, 1855.)

902. *PALÆORNIS ERYTHROGENYS, Blyth.*

Palæornis erythrogenys, *Blyth, J. A. S. Beng.* XV. *pp.* 23, 51, 369 (1846); XIX. *p.* 233; *Cat. B. Mus. A. S. Beng. p.* 6.

Belurus eythrogenys, *Bonap., Rev. Zool.* (1854), *p.* 152.

The Red-cheeked Parrakeet.

*a.* ♂ (type). Nicobar Islands. Presented by the Asiatic Society of Bengal.

"General colour bright green, more yellowish below, and tinged in the male with hoary greyish-blue on the nape and back; winglet and primaries blue, the latter margined and broadly tipped with green; middle pair of tail-feathers also blue, margined with green for the basal half, and the rest of the tail-feathers chiefly or wholly green above, and all of them dull yellow below; cap emerald-green, and uniformly coloured with the back (save where the latter is tinged with grey in the male); a well-defined narrowish black streak from the nostril to the eye, and black moustache as in *P. malaccensis;* lores, cheeks, and ear-coverts *only* are red; upper mandible coral-red, with a white tip; the lower black. The female merely differs in having the crown, nape, and back quite uniform green, without the hoary-blue tinge conspicuous in the male; and the upper mandible is more or less black, like the lower one. A finer specimen of the male has the nape and interscapularies light yellowish, rather than tinged with hoary-grey, and the under-parts are also more yellowish. A still finer male, just deceased, has the cheeks and ear-coverts, continued forward to the beak, of a beautiful bright cherry-red, and devoid of the lake or 'peach-blossom' tinge prevailing on the same parts of *P. malaccensis*, and which, in the latter species, is continued round the nape; the crown, also, is not of the

deep emerald-green as in that species; the occiput and nape incline to light straw-yellow; and there is a well-defined black line from the nostril to the eye: all which combine, with its superior size and absence of red above the ear-coverts, to distinguish it from *P. malaccensis*. Length 18½ in., of which the middle tail-feathers measure 10½ in., wing 7⅝ in. [Middle rectrices beyond lateral ditto 4½ in.; outer fore claw, exclusive of nail, $\frac{8}{10}$ in.; and the outer hind ditto the same; curve of upper mandible 1 in.] Irides dull greyish."—(Blyth.)

"Occurs abundantly in the Nicobar Islands."—(Blyth.)

*Remark.*—This specimen has been compared at the Derby Museum, Liverpool, by my brother, Mr. T. J. Moore, with the type specimens of *Palæornis erythrogenys*, Fraser (P. Z. S. 1850, p. 245), which has been determined to be a distinct species from the above; and "which differs in having the general colour pale *blue-green*, palest on the breast and nape; primaries *green;* middle pair of tail-feathers *blue only on the apical half;* the length being from base of bill to tip of tail, 15½ in., of which the tail occupies 8½ in.; wing 8 in., middle tail-feathers beyond the lateral ditto 3 in., outer fore claw, exclusive of nail, 1 in., and the outer hind ditto the same; curve of upper mandible 1⅜ in. (Died in confinement; therefore probably longer than in a natural state.)" The name of this species is altered to *P. Fraseri*, T. J. Moore.

## 903. *PALÆORNIS CANICEPS, Blyth.*

Palæornis caniceps, *Blyth, J. A. S. Beng.* XV. *pp.* 23, 51, 368 (1846); XIX. *p.* 233; *Catal. B. Mus. A. S. Beng. p.* 6. *Bonap., Rev. Zool.* (1854), *p.* 152.

*a.* ♀. Pinang. Presented by Dr. Cantor (1854).

"General colour of *male* vivid yellowish-green, with the winglet and base of the secondaries indigo-blue, and the medial portion of the secondaries inclining to emerald-green; primaries black, the longest tinged with indigo towards the base; cap grey; a broad frontal band continued to the eyes, and a broad black moustache, with some black feathers also on the throat; above this moustache, between it and the frontal band, the feathers are of the same grey as those of the crown; tail green above, with some blue on its middle feathers, and dull golden-yellowish below; upper mandible coral-red,

with a white tip; lower black: the form of the bill is both narrower and less deep than in *P. Alexandri*, and angulates above towards the base. The *female* has the head less pure grey than in the male; and the bill is wholly black."—(Blyth.)

Length of female about 20 in., of which the middle tail-feathers occupy 9½ in.; of wing 7 in.

The female has the "iris golden-yellow, bill black, feet blackish-grey."—(Dr. Cantor.)

This species also inhabits the Nicobar Islands.

### 904. *PALÆORNIS OSBECKI*, *Latham Sp.*

Psittacus javanicus, *Osbeck, It. Ind. Orient.* I. *p.* 101 (1757); *id. Forster, id. English edit.* I. *p* 156. (1771). *Gmelin, S. N.* I. *p.* 321 (1788).

Psittacus bimaculatus, *Sparr., Mus. Carls. t.* 30 (1787). *Lath., Hist. of B.* II. *p.* 163.

Psittacus barbatus, *Gmelin, S. N.* I. *p.* 325. *Lath., Hist. of B.* II. *p.* 163.

Palæornis barbatus, *Blyth, J. A. S. Beng.* XIX. *p.* 233; *Cat. B. Mus. A. S. Beng. p.* 6. *Tytler, Ann. Nat. Hist.* XIII. *n. s. p.* 365.

Psittacus pondicerianus, *Gmelin, S. N.* I. *p.* 325 (1788). (*Pl. Enl. t.* 517. *Le Vaill., Perr. t.* 31.) *Lath., Hist. of B.* II. *p.* 162.. *Kuhl, Nova Acta, &c., No.* 48.

Palæornis pondicerianus, *Vigors, Zool. Journ.* II. *p.* 54. *Swains., Zool. Ill. n. s. t.* 16. *McClell., P. Z. S.* (1839), *p.* 165. *G. R. Gray, Gen. of B.* II. *p.* 410. *Hodgs., Cat. B. of Nep. p.* 113. *Blyth, J. A. S. Beng.* XV. *p.* 24; XVI. *p.* 475; *Ann. Nat. Hist.* XX. *p.* 386.

Belurus barbatus, *Bonap., Rev. Zool.* (1854), *p.* 152.

Psittacus borneus, *Gmelin, S. N.* I. *p.* 325.

Psittacus Osbeckii, *Lath., Ind. Orn.* I. *p.* 87 (1790). *Horsf., Trans. Linn. Soc.* XIII. *p.* 182. *Lath., Hist. of B.* II. *p.* 122.

Psittacus mystaceus, *Shaw, Zool.* VIII. *p.* 436, *t.* 63 (1811).

Palæornis mystaceus, *v.* pondicerianus, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

Palæornis nigrirostris, *Hodgs.*, *Gray's Zool. Misc.* (1844), *p.* 85 (*the young female*).

Osbeck's Parrakeet.

Whiskered Parrakeet, *Latham.*

Mustache Parrakeet, *Latham.* *Shaw.*

Bearded Parrakeet, *Latham.*

Bornean Parrakeet, *Latham.*

Javan Parrakeet, *Shaw, Zool.* VIII. *p.* 426.

Modest Parrakeet, *Fraser.*

Madna (*i. e.* 'charming, pleasing'), the Red-billed, Hind., *Blyth.*

Kajla (as having the black pigment Kajal applied to the eyebrows, alluding to the black loral line), the Black-billed, Hind., *Blyth.*

Imrit Bhela, Nepal, *Hodgson.*

Bettet, Java, *Horsfield.*

*a. b.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

*c. d.* ♂ ♀. Tenasserim. From Helfer's Collection.

*e.* ♂. Siam. From Finlayson's Collection.

F. *g.* ♂ ♀. Java. From Dr. Horsfield's Collection.

"The upper mandible of the male is always bright coral-red; that of the female is usually black, but often more or less mingled with red. In a presumed female, observed in captivity, the upper mandible changed from black to coral-red when the bird was about eighteen months old. This bird is common in Bengal, Nepal, Assam, Sylhet, Arracan, Tenasserim, Malayan peninsula (to latitude of Pinang), Sumatra, Java, and Borneo. It does not appear to occur wild in Pondicherry, or any other part of the Indian peninsula, or in Ceylon."—(Blyth.)

"All Parrakeets love the shelter of hills, and breed there exclusively, though they wander a good deal in the cold season, especially in the plains."—(Calcutta Journ. VII. p. 561.)

We have deemed it advisable to adopt for this species the name of *P. Osbecki*, in preference to that of *javanicus* or *bimaculatus*, as M. Osbeck was the first to give it a systematic name, and as the bird is an inhabitant of other countries besides Java.

Genus Platycercus, *Vigors, Zool. Journ.* I. *p.* 527 (1825).

905. *PLATYCERCUS EXIMIUS, Shaw Sp.*

Psittacus eximius, *Shaw, Nat. Misc. t.* 96; *Gen. Zool.* VIII. *p.* 411, *tt.* 57, 58. *Kuhl, Monog. Psitt. &c.* (*Le Vaill., Perr. t.* 28.)

Platycercus eximius, *Vigors et Horsf., Trans. Linn. Soc.* XV. *p.* 281. *Wagler, Monog. Psitt. in Abhandl., &c., p.* 530. *Gould, B. of Austr. t.* . *G. R. Gray, Gen. of B.* II. *p.* 408. *Bonap., Rev. Zool.* (1854), *p.* 153.

Psittacus capitatus, *Shaw, Zool.* VIII. *p.* 466.

Rose-hill Parrakeet, *Colonists of N. S. Wales.*

*a.* Drawing. Australia. From F. (B.) Hamilton's Collection.

Genus Aprosmictus, *Gould, P. Z. S.* (1842), *p.* 111.

906. *APROSMICTUS SCAPULATUS, Bechstein.*

Psittacus scapulatus, *Bechstein. Kuhl, Monog. Psitt. No.* 56. *Shaw, Zool.* VIII. *p.* 407, *t.* 55. (*Le Vaill., Perr. tt.* 55, 56.)

Aprosmictus scapulatus, *Gould, P. Z. S.* (1842), *p.* 111; *B. of Austr.* V. *t.* 17. *Bonap., Rev. Zool.* (1854), *p.* 153.

Platycercus scapulatus, *Vigors et Horsf., Trans. Linn. Soc.* XV. *p.* 284. *Swains., Zool. Ill. 2nd ser. t.* 26. *G. R. Gray, Gen. of B.* II. *p.* 408.

Psittacus cyanopygius, *Vieill., Dict. d'Hist. Nat. 2nd edit.* XXV. *p.* 339; *Gal. des Ois. Suppl. t.* .

Blue-rumped Parrot, *F.* (*B.*) *Hamilton, MS.* III. *p.* 55 (1808).

Wellat, Natives of N. S. Wales, *Gould.*

*a. b.* Drawing. Australia. From F. (B.) Hamilton's Collection.

Subfam. IV. LORIINA.

Genus Eclectus, *Wagl., Abhand. Akad. Münch. p.* 495 (1832).

907. *ECLECTUS GRANDIS, Gmelin Sp.*

Psittacus grandis, *Gmelin, S. N.* I. *p.* 335 (1788).

*Lath., Hist. of B.* II. *p.* 230. (*Pl. Enl.* 683. *Brown, Ill. Zool. t.* 6. *Le Vaill., Perr. tt.* 126-7-8.)

Eclectus grandis, *Wagler, Monog. Psitt. Blyth, Cat. B. Mus. A. S. Beng. p.* 9. *Bonap., P. Z. S.* (1849), *p.* 143; *Consp. Gen. Av. p.* 4; *Rev. Zool.* (1854), *p.* 155.

Psittacus ceylonensis,* *Boddaërt, Tabl. des Pl. Enl. d'Aubenton* (1783).

Eclectus ceylonensis, *G. R. Gray, Gen. of B.* II. *p.* 418.

Psittacus janthinus, *Gmelin, S. N.* I. *p.* 319.

Psittacus guebiensis, var., *Lath., Hist. of B.* II. *p.* 135.

The Grand Lory, *Latham.*

Lal-mohan (*i. e.* 'Red favourite'), Hind., *Blyth.*

*a.* Drawing. Moluccas. From Finlayson's Collection.

Genus Mascarinus, *Lesson, Tr. d'Orn. p.* 181 (1831).

Psittacodis, *Bonap.* (1850), *nec. Wagler* (1830).

908. *MASCARINUS POLYCHLOROS, Scopoli Sp.*

Psittacus polychloros, *Scopoli, Deliciæ Floræ et Faun. Insub. pt.* 2, *p.* 87 (1786). (*Sonnerat's Voy. t.* 108.)

Eclectus polychloros, *G. R. Gray, Gen. of B.* II. *p.* 418. *Blyth, Cat. B. Mus. A. S. Beng. p.* 9.

Psittacus sinensis, *Gmelin, S. N.* I. *p.* 337 (1788). (*Pl. Enl.* 514.) *Lath., Hist. of B.* II. *p.* 233.

Mascarinus sinensis, *Lesson, Tr. d'Orn. p.* 188.

Psittacus magnus, *Gmelin, S. N.* I. *p.* 344.

Psittacodis magnus, *Bonap., P. Z. S.* (1850), *p.* 26; *Consp. Gen. Av. p.* 4; *Rev. Zool.* (1854), *p.* 155.

Psittacus viridis, *Lath., Ind. Orn.* I. *p.* 125; *Gen. Hist. of B.* II. *p.* 251.

Psittacus lateralis, *Shaw, Zool.* VIII. *p.* 490. (*Le Vaill., Perr. t.* 132.)

Mascarinus prasinus, *Lesson, Tr. d'Orn.*

? Psittacus orientalis, *Lath., Ind. Orn.* I. *p.* 125; *Gen. Hist. of B.* II. *p.* 251.

Green and Red Chinese Parrot, *Edwards, B. t.* 231.

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* This name is inapplicable.

New-Guinea Green Parrot, *Latham.*

Red-sided Parrot, *Shaw.*

Hira-mohan (' Prized favourite '), Hind., *Blyth.*

A. Moluccas. From the Asiatic Society of Bengal.

B. Moluccas. Donor unknown.

Genus Loriculus, *Blyth, Cat. B. Mus. A. S. Beng. p.* 9 (1848) ; *J. A. S. Beng.* XIX. *p.* 236 (1850).

909. *LORICULUS GALGULUS, Linn. Sp.*

Psittacus galgulus, *Linn., S. N.* I. *p.* 150. (*Pl. Enl.* 190. *Edwards, B. t.* 293, *f.* 2.) *Lath., Hist. of B.* II. *p.* 266. *Horsf., Trans. Linn. Soc.* XIII. *p.* 182. *Raffles, Trans. Linn. Soc.* XIII. *p.* 281.

Loriculus galgulus, *Blyth, J. A. S. Beng.* XIX. *p.* 236. *Bonap., C. G. Av. p.* 6; *Rev. Zool.* (1854), *p.* 155.

Psittacula galgula, *G. R. Gray, Gen. of B.* II. *p.* 423.

Psittaculus galgulus, *Motley and Dillwyn.*

Psittacus flavigulus, *Boddaërt, Tabl. des Pl. Enl. d'Auben. p.* 12.

Psittacus pumilus, *Scop., Del. Florœ et Faunœ Insub. pt.* 2, *p.* 87 (1786). (*Sonn. Voy. N. Guin. t.* 38, *f. inf.*)

Loriculus pumilus, *Blyth. Cat. B. Mus. A. S. Beng. p.* 9.

Psittacula cyanopileata, *Bourj. St. Hill. Perr. t.* 88.

Sapphire-crowned Parrakeet, *Edwards.*

Silindit, or Silinditun, Java, *Horsfield.*

Serindit, Sumatra, *Raffles.*

Seren-dak, Sindada, Malacca, *Blyth.*

A. B. ♂. Sumatra. From Raffles's Collection.

C. ♀. Java. From Dr. Horsfield's Collection.

*d. e. f. g.* ♂ ♀. Malacca. Presented by Dr. Cantor.

Messrs. Motley and Dillwyn, in Contr. to Nat. Hist. of Labuan, state, this is "not a common bird in Labuan, though very abundant on the mainland of Borneo. In Java, they are said to be very destructive to the cane-plantations ; and one which we kept in a cage for some time fed chiefly on sugar-cane ; he became very tame, and when his cage was hung out in the verandah, a wild one would often come into a neighbouring tree and answer his calls : the note is a low chirp."

910. *LORICULUS VERNALIS*, *Sparrman Sp.*

Psittacus vernalis, *Sparrman*, *Mus. Carls. t.* 29 (1787). *Lath.*, *Hist. of B.* II. *p.* 265.

Loriculus vernalis, *Blyth*, *Cat. B. Mus. A. S. Beng. p.* 10; *J. A. S. Beng.* XVIII. *p.* 801; XIX. *p.* 236. *Bonap.*, *Rev. Zool.* (1854), *p.* 155.

Psittaculus vernalis, *Swains.*, *Zool. Ill.* 2*nd ser.* I. *t.* 1. *Blyth*, *J. A. S. Beng.* X. *p.* 921. *Jerdon*, *Madr. Journ.* XI. *p.* 209. *Hodgs.*, *Cat. B. of Nep. p.* 113. *G. R. Gray*, *Gen. of B.* II. *p.* 423.

Psittacus pendulus, *Pearson*, *J. A. S. Beng.* X. *p.* 654 (1841).

Psittacula pyropyga, *v.* vernalis, *Hodgs.*, *Gray's Zool. Misc.* (1844), *p.* 85.

Vernal Parrot, *Latham.*

Pendulous Parrot, *Pearson.*

Red-rumped Dwarf Parrot, or Lorikeet, *Jerdon.*

Bhora, or Bhoara, Hind., S. India, *Jerdon.*

Latkan (*i. e.* 'pendent'), Hind., Bengal, *Blyth.*

Kyai-tha-da, Arracan.

A. India. From the Asiatic Society of Bengal.

B. Madras. From Dr. Wight's Collection.

*c. d.* ♂. Tenasserim. From Helfer's Collection.

"Inhabits all India, from the sub-Himalayan region to S. India, and the countries bordering the eastern shores of the Bay of Bengal, as far as the Tenasserim provinces, where it abounds, and also Java[?]; whereas, in the Malayan peninsula, there appears only to be *L. galgulus*."—(Blyth.)

In C. W. Smith's Notes, it is stated: "These birds have no note that I ever heard, nor do they speak. They are very tame, and when going to roost, resort to the upper part of the cage, where they hang themselves by the legs, with the wings folded almost close to the side, the tail a little spread, and the head downwards."—(J. A. S. Beng. X. p. 654.)

Mr. Jerdon remarks: "I have found this species in S. India, only in the more open spaces of the lofty jungles of the west coast. It is most numerous, I think, in Travancore and the more southern portions, also at the foot of the Neilgherries. I did not observe

it at any considerable elevation, but I see it is enumerated in Mr. Elliott's catalogue as found in the Southern Mahratta country, but only during the rains. It is found in small flocks, and while feeding keeps up a continual feeble chirping. I have found in the stomach of several birds a soft pulpy vegetable mass, with a few seeds. I am informed by a gentleman that the species from Malacca had the same habit of sleeping with its head downwards. Irides whitish-yellow; bill and legs orange."

"Neither the *Eclecti* nor the *Loriculæ* have the tongue filamented as in the *Loriinæ*, with which they have been generally, but quite erroneously, classed. These two *genera* form a particular and peculiarly Asiatic division of the *Psittacinæ*, immediately preceding the *Loriinæ;* such, at least, is the result of our long-continued study of living specimens."—(Blyth.)

911. *LORICULUS ASIATICUS, Latham Sp.*

Psittacus asiaticus, *Lath., Ind. Orn.* I. *p.* 130 (1790); *Gen. Hist. of B.* II. *p.* 264. (*Edwards, B. t.* 6.)

Loriculus asiaticus, *Blyth, J. A. S. Beng.* XVIII. *p.* 801; XIX. *p.* 236; *Cat. B. A. S. Beng. App. p.* 312. *Layard, Ann. Nat. Hist.* XIII. *n. s. p.* 261.

Psittacus indicus,* *Gmelin, S. N.* I. *p.* 349 (1788).

Psittacula indica, *G. R. Gray, Gen. of B.* II. *p.* 423.

Loriculus indicus, *Bonap., Rev. Zool.* (1854), *p.* 155.

Red and Green Indian Parrot, *Latham.*

Gira-malitchia.

Pol-girawa ('Flower Parrot'), Ceylon, *Layard.*

*a.* Drawing. Ceylon. From Jonville's Collection.

"Differs from *L. vernalis* in having the crown deep red, passing to a saffron hue on the nape, and in some specimens over much of the back, while the fore part of the neck is tinged more or less deeply with verditer. This appears to be wholly confined to Ceylon."—(Blyth.)

"Kandy, Putlam, Caltura, Galle, Hambantotte, and Gillymalle, in Ceylon, are the various localities where I have most plentifully procured this pretty little Parrakeet. At Gillymalle, they were in such abundance, that the flowering trees were literally alive with them;

* This name is inapplicable, inasmuch as this species is *not* found in India proper.

they clung to the bright scarlet flowers, head downwards, or scrambled from branch to branch, while the forest echoed with their bickerings. They bit off the leaves (which fell like scarlet snow upon the ground) to get at the calyx, and when this dainty morsel was devoured, they flew off to the banana-trees, down the broad leaves of which they slid, and fastened upon the ripening clusters of fruit or the pendent heart-shaped flower."—(Layard.)

"The distinctive colouring of this species (or race) from *L. vernalis* would appear to be constant; nevertheless, it is so very closely affined to the Indian bird, that many would prefer to regard it as a permanent local variety of the same species."—(Blyth.)

Genus Eos, *Wagler, Abhandl. Akad. Münch. p.* 494 (1832).

912. *EOS RUBRA, Gmelin Sp.*

Psittacus ruber, *Gmelin, S. N.* I. *p.* 335. *Lath., Hist. of B.* II. *p.* 129. (*Pl. Enl.* 519. *Edwards, B. t.* 173. *Le Vaill., Perr. t.* 93, 44.)

Eos rubra, *Wagler, Abhandl. Akad. München, p.* 494. *G. R. Gray, Gen. of B.* II. *p.* 417. *Blyth, Cat. B. Mus. A. S. Beng. p.* 11. *Bonap., P. Z. S.* (1850), *p.* 28; *Consp. Gen. Av. p.* 4; *Rev. Zool.* (1854), *p.* 156.

Psittacus borneus, *Lath., Ind. Orn.* I. *p.* 89; *Gen. Hist. of B.* II. *p.* 127.

Psittacus cærulatus, *Shaw, Nat. Misc. t.* 937.

Psittacus cyanonotus, *Vieillot.*

*a.* Locality unknown. Presented by Dr. Cantor, 1854.

Genus Lorius, *Brisson, Orn.* (1760). *Vigors, Zool. Journ. p.* 400 (1826).

Domicella, *Wagler* (1830).

913. *LORIUS PHILIPPENSIS, Brisson.*

Lorius philippensis, *Brisson, Orn.* IV. *p.* 225. *Blyth, Cat. B. Mus. A. S. Beng. p.* 10.

Psittacus Lory, *Gmelin, S. N.* I. *p.* 335. (*Edwards, B. t.* 170. *Pl. Enl.* 168. *Le Vaill., Perr. tt.* 123, 124.) *Shaw, Zool.* VIII. *p.* 534. *Lath., Hist. of B.* II. *p.* 228.

Lorius tricolor, *Stephens, Shaw's Zool.* XIV. *G. R. Gray, Gen. of B.* II. *p.* 416.

Black-capped Lory, *Latham.*

Papua Lori, Bengalese, *Blyth.*

*a.* Drawing. Moluccas? From Finlayson's Collection.

914. *LORIUS DOMICELLA, Linn. Sp.*

Psittacus domicella, *Linn., S. N.* I. *p.* 145. (*Edwards, B. t.* 171. *Pl. Enl.* 84, 119. *Le Vaill., Perr.* 95, 95*.) *Shaw, Zool.* VIII. *p.* 535, *t.* 81. *Lath., Hist. of B.* II. *p.* 225.

Lorius domicella, *Vigors, Zool. Journ.* II. *p.* 62. *Selby, Nat. Libr. Psitt. p.* 146, *t.* 18. *Lear, Perr. t.* 37. *G. R. Gray, Gen. of B.* II. *p.* 416. *Blyth, Cat. B. Mus. A. S. Beng. p.* 10. *Bonap., C. G. Av. p.* 7; *Rev. Zool.* (1854), *p.* 156.

Psittacus Raja, *Shaw, Zool.* VIII. *p.* 537. (*Le Vaill., Perr. t.* 94.) *Lath., Hist. of B.* II. *p.* 226.

Psittacus Rex, *Bechstein.*

Psittacus radhea, *Vieillot.*

Purple-capped Lory, *Latham.*

Raja Lory, *Shaw.*

Kala-sira Lori, Bengal, *Blyth.*

A. and Drawing. Moluccas. From Finlayson's Collection.

Genus Trichoglossus, *Vigors et Horsf., Trans. Linn. Soc.* XV. *p.* 287 (1826).

Australasia, *Lesson, Tr. d'Orn. p.* 209 (1831).

915. *TRICHOGLOSSUS NOVÆ HOLLANDIÆ, Gmelin Sp.*

Psittacus Novæ Hollandiæ, *Gmelin, S. N.* I. *p.* 316. (*Brown, Ill. t.* 7. *Le Vaill., Perr. t.* 24.) *Lath., Hist. of B.* II. *p.* 123.

Trichoglossus Novæ Hollandiæ, *Blyth, Cat. B. Mus. A. S. Beng. p.* 11.

Australasia Novæ Hollandiæ, *Lesson, Tr. d'Orn. p.* 209.

Trichoglossus hæmatodus, *apud Vigors et Horsf., Trans. Linn. Soc.* XV. *p.* 289.

Trichoglossus Swainsonii, *Jard. et Selby, Ill. Orn. t.* 112. *Selby, Nat. Libr. Parr. t.* 20. *Swains., Zool. Ill.* III. *2nd ser. t.* 92. *Gould, B. of Austr. t.*

Trichoglossus multicolor, *Wagler*, *Mon. Psitt. in Abhandl.* I. *p.* 553 (1820). *G. R. Gray*, *Gen. of B.* II. *p.* 411. *Bonap.*, *Rev. Zool.* (1854), *p.* 157.

Blue-bellied Parrakeet, *Brown.*

Swainson's Lorikeet, *Jardine et Selby.*

Warrin, Australia, *Gould.*

Jat Bangnu, Bengal, *Blyth.*

*a.* Drawing. Australia. From F. (B.) Hamilton's Collection.

916. *TRICHOGLOSSUS ORNATUS*, *Gmelin Sp.*

Psittacus ornatus, *Gmelin*, *S. N.* I. *p.* 324. (*Edwards*, *B. t.* 174. *Pl. Enl.* 552. *Le Vaill.*, *Perr. t.* 52.) *Lath.*, *Hist. of B.* II. *p.* 140. *Raffles*, *Trans. Linn. Soc.* XIII. *p.* 281.

Trichoglossus ornatus, *G. R. Gray*, *Gen. of B.* II. *p.* 411. *Bonap.*, *P. Z. S.* (1850), *p.* 27; *Rev. Zool.* (1854), *p.* 157.

Eos ornata, *G. R. Gray*, *Gen. of B.* II. *p.* 417. *Blyth*, *Cat. B. Mus. A. S. Beng. p.* 11; *J. A. S. Beng.* XIX. *p.* 237.

Variegated Lorikeet.

Lory Parrakeet, *Latham.*

Bangnu and Bandhnu, Hind., *Blyth.*

A. and Drawing. Malacca (?) From Raffles's Collection.

Sir Stamford Raffles states that this species "is found on the Malayan peninsula."

Subfam. V. MACROCERCINA, *Vigors.*

Genus Conurus, *Kuhl*, *Monog. Psitt.* (1820).

Psittacara, *Vigors*, *Zool. Journ.* (1826).

Cyanoliseus, *Bonap.*, *Rev. Zool.* (1854), *p.* 150.

917. *CONURUS CYANOLYSEOS*, *Molina Sp.*

Psittacus cyanolyseos, *Molina. Lear*, *Psitt. t.* 10.

Conurus cyanolyseos, *G. R. Gray*, *Gen. of B.* II. *p.* 413.

Psittacus patagonus, *Vieillot.*

Psittacus (Aratinga) Byroni, *Children, Gray's Zool. Misc. p.* 12 (1832).

Cyanoliseus patagonus, *Bonap., Rev. Zool.* (1854), *p.* 150.

A. S. America. Donor unknown.

*Summary view of the distribution of the* PSITTACIDÆ *in India and the neighbouring countries.* By E. BLYTH.—"From the foregoing catalogue it follows that only two generic forms of *Psittacidæ* inhabit India, viz. *Palæornis* and *Loriculus;* nor are we aware that another occurs in all continental Asia, with the exception of *Tanygnathus* [Psittinus], as exemplified by *T. malaccensis* in the Malayan peninsula; this species being, however, barely separable from *Palæornis*, and the peninsula itself belonging physically to the region of the archipelago, or *Indonesia*, as this region has been recently designated by Mr. Logan. *Tanygnathus* [Psittinus] should accordingly be regarded as strictly an Indonesian form. In the Asiatic countries westward of Scinde, it does not appear that any species of Parrot has been observed; and we know but little of those of Indo-China eastward of the British possessions on that side of the Bay of Bengal, or those of the southernmost provinces of China. In the great Indonesian or Austral-Asian archipelago, the number of genera and of super-generic forms gradually increases to the eastward, where the Lories and species of White Cockatoo, also the two species of *Eclectus* (*E. polychlorus* and *grandis*), among the *Psittacinæ*, and the large *Tanygnathi*, are met with in Borneo, Celebes, the Moluccas, and some of them even in the Philippines; forms of Black Cockatoo appearing likewise in the Papuan group; while in Australia the *Psittacidæ* attain their maximum of development as regards the number of genera and of species, though the two generic forms of India, and certain others of Indonesia, are foreign to the Australian Fauna. Sumatra and Java contain the *Tanygnathus* perhaps as a rarity, but no Cockatoo, nor *Eclectus;* and the only Lory, if any, is *Eos ornata*, which Sir Stamford Raffles reported by mistake (?) to inhabit the Malayan peninsula.

With regard to the distribution of *species* in India and the neighbouring countries, we first remark three of *Palæornis* (*Alexandri*, *torquatus*, and *cyanocephalus*) as common—with unimportant local exceptions—to all India, from the sub-Himalayan regions to Ceylon inclusive, and also to the eastward, in Assam, Arracan, the Tenasserim provinces; and *P. torquatus* as far southward as Penang. Others are much more local, as *P. Calthrapæ*, Layard, which is confined to

the mountains of Ceylon, [and *P. Layardi*, Blyth, also peculiar, so far as is yet known, to Ceylon, where one specimen only was procured by Mr. Layard, and another by Willis Earle, Esq., F.M.;] and *P. columboides* to those of S. India, *P. schisticeps* to the sub-Himalayan regions, and *P. erythrogenys* (so far as known) to the Nicobar Islands. Of *P. caniceps* we know of but two examples, one procured in the Nicobars, the other at or near Penang [*vide* p. 621, *antè*]; and this may prove to be properly a species of Indo-China. In the hilly parts of Bengal, and along the S.E. sub-Himalayan regions, in Assam, Sylhet, Arracan, the Tenasserim provinces, and the Malayan peninsula, to the latitude of Penang, *P. barbatus* [*Osbecki*] abounds, and is common also in Sumatra, Java, and Borneo, but it is unknown in the Indian peninsula (though having for a synonyme the name of *pondicerianus*), and it would seem equally so in the southern parts of the Malayan peninsula. In these latter countries its place would seem to be taken by *P. malaccensis;* and the range of *Tanygnathus* [*Psittinus*] *malaccensis* and of *Loriculus gulgulus* corresponds. In Malacca collections, I have seen only the three last-named species, added to which, in Penang collections, I have seen *P. torquatus*, *P. barbatus*, and one specimen of *P. caniceps;* while another of this last is the only Parrakeet which I have seen from the Nicobars, in addition to *P. erythrogenys*. It is probable that both of these also inhabit the Andamans and the northern part of Sumatra. Of *Loriculus*, while *L. gulgulus* would appear to be confined to the Malayan peninsula, Sumatra, [Borneo, and Java, F.M.,] and *L. asiaticus* (so called) to Ceylon, *L. vernalis* ranges over the hilly regions of all India, with Assam, Arracan, the Tenasserim provinces, and also Java [? F.M.], like *Palæornis barbatus*, and similarly, without invading (as it would seem) the regions tenanted by *L. gulgulus*, together with *P. malaccensis* and *Tanygnathus* [*Psittinus*] *malaccensis*. It may further be remarked, that the whole of these species are such as no zoologist would hesitate in regarding as indisputably distinct, with the exception of *Loriculus asiaticus*, which some would consider to be a local variety of *L. vernalis;* in which case the race of Philippines (*L. rubrifrons*), and another we have seen figured with the entire head crimson, should likewise rank as varieties merely of *L. vernalis*."—(J. A. S. Beng. 1850, p. 237.)

## Fam. II. RAMPHASTIDÆ, *Vigors.*

Genus Ramphastos, *Linn., S. N. p.* 19 (1748).

Bucco, *Mœhring, Av. Gen.* (1752).

Tucana, *Brisson, Orn.* (1760).

### 918. *RAMPHASTOS PISCIVORUS, Linn.*

Ramphastos piscivorus, *Linn., S. N.* I. *p.* 151? *Edw., B. t.* 64? 329. *Shaw, Nat. Misc. t.* 183. *G. R. Gray, Gen. of B.* II. *p.* 403. *Bonap., C. G. Av. p.* 93.

Ramphastos Tucanus, *Shaw, Zool.* VIII. *p.* 362.

Ramphastos carinatus, *Swains., Zool. Ill.* I. *t.* 45. *Gould, Monog. Ramph. t.* 7; *id. 2nd edit. t.* 2. *G. R. Gray, Cat. B. Brit. Mus. Ramph. p.* 2.

The Sharp-billed Toucan, *Swainson.*

*a.* Mexico. Presented by J. Gould, Esq.

Genus Pteroglossus, *Illiger, Prod. p.* 202 (1811).

Aracari, *Lesson, Man. d'Orn. p.* 131 (1828).

### 919. *PTEROGLOSSUS ARACARI, Linn. Sp.*

Ramphastos Aracari, *Linn., S. N.* I. *p.* 151. *Brisson, Orn.* IV. *t.* 33, *f.* 2. (*Will., Orn. t.* 22. *Pl. Enl.* 166. *Le Vaill., Ois. de Parad. t.* 10. *Shaw, Nat. Misc. t.* 198.)

Pteroglossus Aracari, *Illiger, Prod. Syst. Mam. et Av. p.* 202. *Gould, Monog. Ramph. t.* 12; *id. 2nd edit. t.* 15. *G. R. Gray, Gen. of B.* II. *p.* 403. *Bonap., C. G. Av. p.* 93. *G. R. Gray, Cat. B. Brit. Mus. Ramph. p.* 6.

The Aracari Toucan, *Gould.*

*a.* Cayenne. Presented by J. Gould, Esq.

"The Toucans are found in the tropical parts of S. America. They are very shy and cautious, and are usually observed hopping actively from branch to branch, amid the lofty foliage of the highest trees of the forests. Various fruits, especially the banana, form their chief subsistence; they will also feed on small reptiles, larvæ of insects,

young birds, and eggs; for which latter they will readily attack the nests of other birds. It is in the holes in trunks of trees that the female deposits generally two eggs. These birds, when in a state of repose, resemble a round ball of feathers, as their head is usually placed over the shoulders, while the bill is entirely concealed beneath the feathers of the back and greater wing-coverts; the tail is brought over the back, and the body is closely applied to the branch on which they are perched."—(Gray's Gen. of Birds.)

## Fam. III. PICIDÆ, *Vigors.*

### Subfam. I. MEGALAIMINA.

Genus LAIMODON, *G. R. Gray, List of Gen. of B.* (1841).
POGONIAS, *Illiger, Prod.* (1811).
POGONIA, *Vieillot* (1816).

920. *LAIMODON SALTI, Stanley Sp.*

Bucco Saltii, *Stanley, Salt's Trav. in Abyss. App.* IV. *p.* 54 (1814). *Latham, Hist. of B.* III. *p.* 238, *t.* 53.
Laimodon Salti, *G. R. Gray, Gen. of B.* II. *p.* 428.
Pogonias Salti, *Bonap., C. G. Av. p.* 145.
Pogonias rubrifrons, *Swainson, Zool. Ill. t.* 68.
Pogonias Brucei, *Rüppell, Faun. Abyss. t.* 20, *f.* 1.
Abyssinian Barbet, *Latham.*

A. Abyssinia. From Harris's Collection.

Genus MEGALAIMA, *G. R. Gray, Gen. of B.* II. *p.* 429 (1846).

921. *MEGALAIMA VIRENS, Boddaërt Sp.*

Bucco virens, *Boddaërt, Tabl. des Pl. Enl. d'Aubent.* (1783). (*Pl. Enl.* 871. *Le Vaill., Barb. t.* 20.)
Megalaima virens, *G. R. Gray, Gen. of B.* II. *p.* 429. *Hodgs., Cat. B. of Nep. p.* 114. *Blyth, Cat. B. Mus. A. S. Beng. p.* 66.
Bucco grandis, *Gmel., S. N.* I. *p.* 408. *Lath., Hist. of B.* III. *p.* 230. *Gould, Cent. of B. t.* 46. *Blyth,*

*J. A. S. Beng.* XV. *p.* 13. *Bonap., C. G. Av. p.* 143. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

A. *b.* Bootan. From Pemberton's Collection.

*c. d.* Nepal. Presented by B. H. Hodgson, Esq.

*e.* Darjeeling. From Pearson's Collection.

*f.* Kumaon. From Captain R. Strachey's Collection.

922. *MEGALAIMA LINEATA, Vieillot Sp.*

Bucco lineatus, *Vieillot, Dict. Class. d'Hist. Nat. Blyth, J. A. S. Beng.* XV. *p.* 12; *Ann. Nat. Hist.* XX. *p.* 321.

Megalaima lineata, *Blyth, Cat. B. Mus. A. S. Beng. p.* 66. *Bonap., C. G. Av. p.* 144. *Tytler, Ann. Nat. Hist.* XIV. *n. s. p.* 173.

Bucco corvinus, *Temm., Pl. Col.* 522. *McClell., P. Z. S.* (1839), *p.* 165.

Bucco caniceps, *v.* viridis, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

Megalaima caniceps, *apud Hodgs., Cat. B. of Nep. p.* 114.

? Megalaima Hodgsoni, *Bonap., C. G. Av. p.* 144 (1850).

Fichtel's Barbet, *Lath., Hist. of B.* III. *p.* 226.

The Hill Barbet.

Pahariah Corul, Beng., *F.* (*B.*) *Hamilton, MS.* II. *p.* 149.

Pho-goung, Arracan, *Phayre.*

Pokoung, Burmese, *Tickell.*

*a.* and Drawing. Assam. From McClelland's Collection.

*b. c.* Nepal. Presented by B. H. Hodgson, Esq.

*d. e.* Kumaon. From Captain R. Strachey's Collection.

*f.* Dacca. Presented by Captain R. C. Tytler.

"Common in some parts of Bengal, and in Nepal, extending westward to the Deyra Doon; also in Assam, Sylhet, Arracan, and the Tenasserim provinces, whence it probably extends into Sumatra." (?)—(Blyth.)

923. *MEGALAIMA McCLELLANDI, Moore.*

A. N. E. Bengal. Presented by J. McClelland, Esq., 1841.

*M. McClellandi, n. s.*—Allied to *M. caniceps*, having the head, neck, and throat wholly buffy-white; the breast and belly of the same colour, with the feathers gradually margined laterally with light brownish; flanks and vent greenish, tinged with golden-yellow; back, wings, and tail green, and having a golden cast; wing-coverts and tertiaries *without* terminal whitish speck. The bill is shorter, thicker, and higher than in *M. caniceps*. Length about $8\frac{1}{2}$ in., of wing 5 in., tail $3\frac{1}{4}$ in., bill from frontal plumes $1\frac{1}{5}$ in., height from chin $\frac{6}{10}$ in., tarsus $1\frac{2}{5}$ in.

924. *MEGALAIMA CANICEPS, Franklin Sp.*

Bucco caniceps, *Franklin, P. Z. S.* (1830), *p.* 121. *Blyth, J. A. S. Beng.* XV. *p.* 12.

Megalaima caniceps, *G. R. Gray, Gen. of B.* II. *p.* 429. *Blyth, Cat. B. Mus. A. S. Beng. p.* 66. *Bonap., C. G. Av. p.* 144. (*Le Vaill., Barb. t.* 28.)

Bucco lineatus, *apud Tickell, J. A. S. Beng.* II. *p.* 579.

Bucco viridis (*part*), *apud Jerdon, Madr. Journ.* XI. *p.* 217.

Bucco zeylanicus, *apud Jerdon, Madr. Journ.* XIII. *pt.* 2, *p.* 140.

Fichtel's Barbet, var. A., *Latham.*

Jungle Barbet, *Jerdon.*

Hackled Barbet, *Tickell.*

Burra Bassunta, Central India, *Franklin.*

Kootomra, Hind., *Jerdon.*

Kootoorga, Mahr., *Jerdon.*

Kootur-kakee, Canara, *Jerdon.*

*a.* Midnapore Jungle. From the Asiatic Society of Bengal.

"Inhabits the Indian peninsula, spreading northward to the Deyra Doon; common in Midnapore jungles, and in Central India."—(Blyth.)

"Found throughout peninsular India, only in the higher jungles, and is most abundant on the west coast. From Mr. Elliot's Notes, I extract the following interesting observations:—'Seldom seen on

the wing; but single birds heard on almost every tree, uttering their peculiar note, which resembles the native (Canarese) name, being a continued *Kōotur*, *Kŏturr*, or *K'turr*. They continue to call for some minutes at a time, and are heard throughout the day. On each side of the throat is a naked spot with skin wrinkled, which is probably contracted and expanded when the bird is calling.' This bird does not climb like a Woodpecker, and I never heard any tapping from the trees it frequents. Its most general food is fruit and berries; occasionally it eats various insects. Irides reddish-brown; bill and legs pale horny-brown.

They breed in holes of trees, laying, I am informed, three or four white eggs."—(Jerdon.)

925. *MEGALAIMA ZEYLANICA*, *Gmelin Sp.*

Bucco zeylanica, *Gmelin, S. N.* I. *p.* 408. (*Brown, Ill. Zool. t.* 15.) *Lath., Hist. of B.* III. *p.* 229. *Blyth, J. A. S. Beng.* XV. *pp.* 13, 282.

Megalaima zeylanica, *Blyth, J. A. S. Beng.* XX. *p.* 181.

Megalaima caniceps (*ex Ceylon*), *Blyth, Cat. B. Mus. A. S. Beng. p.* 67.

Megalaima caniceps, *apud Layard, Ann. Nat. Hist.* XIII. *p.* 446.

Kotoorooal, Ceylon, *Layard.*

Kotoor, Mal., *Layard.*

*a.* Ceylon. Drawing. From M. Jonville's Collection.

"Common in Ceylon, and universally distributed. It feeds on fruits and berries of all kinds, which it swallows entire; it does not, that I know of, devour small birds when in a state of nature; but one kept in a large aviary in Colombo destroyed all the little *Amadinæ* placed with it. Not content with snapping them up when within his reach, he would lie in wait for them behind a thick bush or the feeding-trough, pounce upon them unawares, and, after beating them a little on the ground or perch, swallow them whole. When this cannibal came into my possession, he was confined in a smaller cage than that in which he had at first been secured; this seemed to displease him, and he went to work to find some means of escape: he narrowly examined every side and corner to discover a weak spot, and having detected one, applied himself vigorously to bore a hole through it, as a Woodpecker would have done. Grasping the bars with his feet, he swung himself round, bringing his whole weight to

bear upon his bill, which he used as a pickaxe, till the house resounded with his rapid and well-aimed blows. On being checked from exercising his ingenuity in this manner, he became sulky, and refused to eat, or offer his call of recognition when I approached him; in a day or two, however, he apparently thought better of the matter, resumed his labours upon another spot, and fed as voraciously as ever, devouring huge slices of bananas, jungle-fruits, the bodies of any small birds I skinned, &c. I hoped he would have lived long with me, but found him dead one morning at the bottom of his cage; and as he was fat and well-favoured, I presume he died a victim to the solitary system.

The species builds in hollow trees, laying three or four pure white, but very shining eggs. Axis 1 in. 1 line, diameter 11 lines. The natives all affirm that the birds hollow out their own nest-hole. One I saw was in an unsound tree, the nest slightly formed of a few bents of dry grass."—(E. L. Layard.)

926. *MEGALAIMA VIRIDIS*, *Gmelin Sp.*

Bucco viridis, *Gmelin, S. N.* I. *p.* 408. (*Pl. Enl.* 870.) *Lath., Hist. of B.* III. *p.* 228. *Temm., Text. de Pl. Col. Jerdon, Madr. Journ.* XI. *p.* 217; XIII. *pt.* 2, *p.* 140; *Ill. Ind. Orn. t.* 26. *Blyth, J. A. S. Beng.* XV. *p.* 13.

Megalaima viridis, *G. R. Gray, Gen. of B.* II. *p.* 429 (*excl. syn.*). *Blyth, Cat. B. Mus. A. S. Beng. p.* 67. *Bonap., C. G. Av. p.* 144.

Bucco caniceps, *apud Sykes, P. Z. S.* (1832), *p.* 97.

The Green Barbet, *Latham.*

A. *b. c.* Dukhun. Presented by Colonel Sykes.

"Inhabits the Indian peninsula, and generally found in the woods on the Neilgherries, but also here and there in the forests of Malabar, chiefly in the higher portions of the Ghauts. Its note is hardly so loud as its more common congener of the Malabar forests, viz. *M. caniceps.* Its flight, as indeed is that of all the species, is rapid, direct, and somewhat undulating. It perches generally on lofty branches of trees; and on a wood being beaten for game, several of these may be seen winging their way over the tops of the trees to a more secure spot. I have occasionally heard the call of a species of this genus by moonlight."—(Jerdon.)

"Found only in the dense woods of the Ghauts. Its note is quite

startling, and makes the hills echo. Stony fruit only found in the stomach."—(Colonel Sykes.)

Genus Chotorea, *Bonaparte* (1854).

Megalaima, *p. Gray.*

927. *CHOTOREA JAVENSIS, Horsfield Sp.*

Bucco javensis, *Horsf., Trans. Linn. Soc.* XIII. *p.* 181 (1820). *Lath., Hist. of B.* III. *p.* 231. *Vigors, Mem. Raffles, p.* 667.

Chotorea javensis, *Bonaparte* (1854).

Megalaima javensis, *G. R. Gray, Gen. of B.* II. *p.* 429. *Bonap., C. G. Av. p.* 143.

Bucco Kotoreas, *Temm., Text. de Pl. Col.* (*Le Vaill., Barb. Suppl. t. C.*)

Chodok, Java, *Horsfield.*

A. B. C. *d.* Java. From Dr. Horsfield's Collection.

928. *CHOTOREA CHRYSOPOGON, Temminck Sp.*

Bucco chrysopogon, *Temm., Pl. Col.* 285. *Vigors, Mem. Raffles, p.* 668. *Blyth, J. A. S. Beng.* XV. *p.* 13; XVI. *p.* 466.

Megalaima chrysopogon, *G. R. Gray, Gen. of B.* II. *p.* 429. *Blyth, Cat. B. Mus. A. S. Beng. p.* 67. *Bonap., C. G. Av. p.* 143.

*a.* Malacca. Presented by Dr. Cantor, 1854.

929. *CHOTOREA VERSICOLOR, Raffles Sp.*

Bucco versicolor, *Raffles, Trans. Linn. Soc.* XIII. *p.* 284 (1822). *Vigors, Mem. Raffles, p.* 667. *Temm., Pl. Col.* 309. *Eyton, P. Z. S.* (1839), *p.* 105. *Blyth, J. A. S. Beng.* XV. *p.* 13; XVI. *p.* 466.

Megalaima versicolor, *G. R. Gray, Gen. of B.* II. *p.* 429. *Blyth, Cat. B. Mus. A. S. Beng. p.* 67. *Bonap., C. G. Av. p.* 143. *Motley and Dillwyn, Nat. Hist. Labuan, pt.* 1, *p.* 28 (1855).

Bucco Rafflesii, *Lesson, Rev. Zool.* (1839), *p.* 137.

Takoo, Sumatra, *Raffles.*

Takoor, Malacca, *Eyton.*

Panggil Panggil, Malays, Labuan, *Motley.*

A. and Drawing. Sumatra. From Sir S. Raffles's Collection.

*b. c.* Malacca. From Griffith's Collection.

*d. e.* Malacca. *f.* Pinang. Presented by Dr. Cantor, 1854.

930. *CHOTOREA MYSTACOPHANOS, Temminck Sp.*

Bucco mystacophanos, *Temm., Pl. Col.* 315. *Vigors, Mem. Raffles, p.* 668.

Megalaima mystacophanos, *G. R. Gray, Gen. of B.* II. *p.* 429. *Blyth, Cat. B. Mus. A. S. Beng. App. p.* xix. *Bonap., C. G. Av. p.* 143.

Bucco quadricolor, *Eyton, P. Z. S.* (1839), *p.* 105. *Blyth, J. A. S. Beng.* XV. *p.* 14.

Megalaima quadricolor, *G. R. Gray, Gen. of B.* II. *p.* 429. *Blyth, Catal. B. Mus. A. S. Beng. p.* 67.

Tahoor Capata Cuning, Malaya, *Eyton.*

A. Sumatra. From Sir S. Raffles's Collection.

*b. c.* Malacca. Presented by Dr. Cantor, 1854.

Genus Cyanops, *Bonaparte* (1854).

Megalaima, *p. Gray.*

931. *CYANOPS ASIATICA, Latham Sp.*

Trogon asiaticus, *Lath., Ind. Orn.* I. *p.* 201 (1790). (*Le Vaill., Barb. tt.* 21, 22.)

Cyanops asiatica, *Bonaparte* (1854).

Megalaima asiatica, *G. R. Gray, Gen. of B.* II. *p.* 429. *Hodgs., Cat. B. of Nep. p.* 114. *Blyth, Cat. B. Mus. A. S. Beng. p.* 67. *Bonap., C. G. Av. p.* 143. *Tytler, Ann. Nat. Hist.* XIII. *n. s. p.* 367.

Bucco asiaticus, *Lath., Hist. of B.* III. *p.* 223, *t.* 51. *Blyth, J. A. S. Beng.* XV. *p.* 13. *Tickell, J. A. S. Beng.* XVII. *p.* 298.

Capito cyanicollis, *Vieillot, Gal. des Ois. t.* 35.

Bucco cyanicollis, *Temm., Text. de Pl. Col. Sundevall, Physiogr. Sällsk. Tidsk.* (1837), *p.* ; *Ann. Nat. Hist.* XVIII. *p.* 398.

Bucco cyanops, *Cuvier, Règ. Anim.* (1817), *p.* 428.

*McClell., P. Z. S.* (1839), *p.* 165. *Pearson, J. A. S. Beng.* X. *p.* 655.

Bucco cæruligula, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

The Blue-cheeked Barbet, *Latham.*

Burra Bassunt-bairi, Bengal, *F.* (*B.*) *Hamilton. Blyth.*

Burra Benebo, Beng., *Sundevall.*

Bassunt Gorul, Sylhet, *F.* (*B.*) *Hamilton.*

Corul, of the Mussulmen, *F.* (*B.*) *Hamilton.*

Suttra, Plains, *Tickell.*

Koop-kha-loung, Arracan, *Phayre.*

A. *b.* and Drawing. Assam. From McClelland's Collection.

*c. d. e.* Nepal. Presented by B. H. Hodgson, Esq.

*f.* Kumaon. Presented by Captain R. Strachey.

*g.* Drawing. From F. (B.) Hamilton's Collection.

"Abounds in the sub-Himalayan region, in Nepal, Bengal, Assam, and Sylhet; but becomes comparatively rare in Arracan."—(Blyth.)

"Common near Calcutta, and is called *Burra Benebo.* Lives solitary, and feeds on berries, which were always found broken asunder upon examining the stomach. The note may be expressed by *rokuroj! rokuroj!* the middle syllable being uttered in a higher note than the other two. Both sexes cry in the same manner, sitting still with outstretched neck; at intervals they were seen to spring aside, or transversely across the branch, with considerable activity. They were observed from February to May."—(Sundevall.)

"The Blue-cheeked Barbet is common in Bengal, less so in Orissa, and I did not observe it at Juanpore. Mr. C. W. Smith, in his MS. Notes, well observes of it, that 'it has a peculiar habit, when perched, of bowing the head, accompanying each motion with a single note, resembling the word '*hoo.*' It has two broods, the one in the month of May, the other in November.' "—(Pearson.)

"Found in the neighbourhood of Calcutta throughout the year, and excavates holes in trees for its nest. It feeds chiefly upon wild figs, plantains, and other fruit, and is extremely noisy. Its name, *Bassunt Bairi*, signifies the 'Old Woman of the Spring;' *Bairi* being an old woman, and *Bassunt* being one of the divisions of the

year, which includes our February and March."—(F. (Buchanan) Hamilton, MS. I. p. 62.)

"Nest hemispherical; 5 in. in diameter, coarse; outer covering of tendrils and dry grass, with the cottony blossoms of jungle-grass plastered on; lining of fine hay. Eggs four, shape ordinary; size $1\frac{7}{20} \times 1\frac{1}{20}$ in.; colour plain white, soiled with faint brownish here and there. Found in a Mowhooa tree, near jungle. August."—(Captain Tickell.)

932. *CYANOPS FRANKLINII, Blyth Sp.*

Bucco Franklinii, *Blyth, J. A. S. Beng.* XI. *p.* 167 (1842); XV. *p.* 13.

Megalaima Franklinii, *G. R. Gray, Gen. of B.* II. *p.* 430. *Hodgs., Cat. B. of Nep. p.* 114. *Blyth, Cat. B. Mus. A. S. Beng. p.* 68. *Bonap., C. G. Av. p.* 144. *Tickell, J. A. S. Beng.* XXIV. *p.* 278.

Bucco igniceps, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

Franklin's Barbet, *Blyth.*

A. *b.* Himalaya. From Griffith's Collection.

*c. d. e. f.* Nepal. Presented by B. H. Hodgson, Esq.

Inhabits the S. E. Himalaya, Cherra Punji, Assam, and the mountains of Tenasserim.

"This Barbet swarms in the mountains of Tenasserim, from 3,000 to 5,000 feet elevation, not higher, nor lower; and from the first level it suddenly and entirely supplants *M. lineata.* As long as day lasts, the woods amongst the Dauna hills resound with its cry, —*piow, piow, piow,* &c."—(Captain Tickell.)

933. *CYANOPS HENRICI, Temminck Sp.*

Bucco Henricii, *Temm., Pl. Col.* 524 (183–).

Megalaima Henrici, *Bonap., C. G. Av. p.* 143.

Bucco malaccensis, *Hartlaub, Rev. Zool.* (1842), *p.* 337.

Megalaima malaccensis, *Blyth, Cat. B. Mus. A. S. Beng. App. p.* xix. *Bonap., C. G. Av. p.* 144.

Megalaima armillaris, *apud Blyth, Cat. B. Mus. A. S. Beng. p.* 67.

A. B. Sumatra (?) Purchased.

C. Sumatra (?) From the Asiatic Society of Bengal.

Genus XANTHOLÆMA, *Bonaparte* (1854).

MEGALAIMA, *p. Gray.*

934. *XANTHOLÆMA INDICA*, *Latham Sp.*

Bucco indicus, *Lath., Ind. Orn.* I. *p.* 205 (1790); *Hist. of B.* III. *p.* 225. *F.* (*B.*) *Hamilton, MS.* II. *p.* 150. *Jerd., Madr. Journ.* XI. *p.* 216. *Pearson, J. A. S. Beng.* X. *p.* 655. *Blyth, J. A. S. Beng.* X. *p.* 922; XV. *p.* 13; XVI. *p.* 464; *Ann. Nat. Hist.* XX. *p.* 385.

Bucco philippensis, *apud Raffles, Trans. Linn. Soc.* XIII. *p.* 283. *Sykes, P. Z. S.* (1832), *p.* 97. *Sundevall, Physiogr. Sällsk. Tidsk.* (1837), *p.* ; *Ann. Nat. Hist.* XVIII. *p.* 397.

Bucco philippensis, var. A., *Lath., Hist. of B.* III. *p.* 222.

Megalaima philippensis, *apud G. R. Gray, Gen. of B.* II. *p.* 429. *Blyth, Cat. B. Mus. A. S. Beng. p.* 68. *Bonap., C. G. Av. p.* 144. *Tytler, Ann. Nat. Hist.* XIII. *n. s. p.* 367. *Layard, Ann. Nat. Hist.* XIII. *n. s. p.* 447.

Bucco flavicollis, *Vieillot.*

Bucco luteus, *Less., Tr. d'Orn. p.* 163 (1831); *Ois. de Murs. Pl p.* 121 (*albino variety, Jerdon*).

Bucco Rafflesius, *Boie, nec. Lesson.*

Megalaima Rafflesia, *Bonap., C. G. Av. p.* 144.

Indian Barbet, *Latham.*

KUT-KHORA, Hind., *Jerdon.*

TAMBAYUT (*i. e.* 'Coppersmith'), Hind., *Sykes, Jerdon.*

CHOTA BASSUNT BAIRI, Bengal, *Blyth.*

BASSUNTA LISORA, Upper Provinces, *Rev. T. Phillips.*

CHANDA, Sumatra, *Raffles.*

MAL-KOTOOR, Ceylon, *Layard.*

KOKOORUPAN, Mal., *Layard.*

A. *b.* ♂ ♀. Dukhun. Presented by Colonel Sykes.

*c.* Bengal. From Dr. Falconer's Collection.

*d.* Drawing. From F. (B.) Hamilton's Collection.

*e. f.* Nepal (No. 931, Hodgs. Cat.). Presented by B. H. Hodgson, Esq., 1853.

*g. h.* Tenasserim. From Helfer's Collection.

*i*. Keddah. *j*. Prov. Wellesley, Malacca. Presented by Dr. Cantor, 1854.

*j*. Sumatra. Drawing. From Raffles's Collection.

*k*. Ceylon. Drawing. From M. Jonville's Collection.

"This is extremely common in all parts of the country, wherever there are a sufficiency of trees, inhabiting open spaces in the jungles (never in the denser portions), groves, avenues, and gardens, being very familiar, approaching close to houses, and sometimes perching on the house-top. As far as I have observed, it does not climb like the Woodpeckers, but, when feeding, hops about the branches like a perching bird. Though I never detected this Barbet tapping like the Woodpeckers, I have once or twice had good reason for supposing that it does so occasionally. Its chief food is fruit of various kinds, and sometimes insects. When not employed in feeding, it generally seats itself on the very top of a tree, and gives utterance to its monotonous call of *took*, *took*, *took*, nodding its head at each call, first to one side and then to the other."—(Jerdon.)

"Sits on the loftiest and extreme twigs of trees, uttering the syllables *took*, *took*, *took*, deliberately, and nodding its head at each *took;* the sound and the motion originating the idea of a coppersmith at work hammering. Fruit and insects found in the stomach."—(Colonel Sykes.)

"Often congregates in small flocks. It flies with short jerks, high in the air, though to no great distance at a time. It is a social good-tempered bird."—(Pearson.)

"The voice of this bird is certainly very remarkable: it begins in a low tone, and gradually increases its pitch and its power until the whole tree seems vocal with one full rich sound. This ubiquity of sound much deceives a person endeavouring to see the bird who causes it, as he may look to any part of the tree, and his ear will never guide his eye. Another is the smallness and green colour of the bird, which hide it among the foliage; and the last is its immobility, for it remains fixed to one spot all the time it utters its note. When not thus engaged, it runs up and down the tree like a Woodpecker, displaying its beautiful yellow, red, and green clothing. Abounds in Rohilcund; and is also a visitant in the neighbourhood of Muttra. They generally occur in pairs; and I have seen them in all high trees."—(Rev. T. Phillips's MS. Notes.)

"This is the prevailing species of Barbet in the northern province of Ceylon. It frequents the tamarind-trees, on the fruit of which it

feeds. It breeds in holes, and I have seen it in the act of excavating them in decaying portions of living trees."—(E. L. Layard.)

935. *XANTHOLÆMA RUBRICAPILLA*, *Gmelin Sp.*

Bucco rubricapillus, *Gmel.*, *S. N.* I. *p.* 408. (*Brown*, *Ill. Zool. t.* 14.) *Cuvier*, *Règ. Anim.* (1829), *p.* 457. *Lath.*, *Hist. of B.* II. *p.* 224. *Blyth*, *J. A. S. Beng.* XVI. *pp.* 386, 464.

Megalaima rubricapilla, *G. R. Gray*, *Gen. of B.* II. *p.* 429. *Blyth*, *Cat. B. Mus. A. S. Beng. p.* 68. *Bonap.*, *C. G. Av. p.* 144. *Layard*, *Ann. Nat. Hist.* XIII. *n. s. p.* 448.

The Rose-crowned Barbet, *Latham.*

Mal-Kotoor, Ceylon, *Layard.*

*a.* Drawing. Ceylon. From M. Jonville's Collection.

"This species differs from *M. indica* in having its throat, and above and below the eye, orange-yellow, instead of sulphur-yellow; in the much inferior development of the crimson gorget, which is little more than indicated; in the black of the moustaches and ear-coverts being replaced by dull verditer, that of the crown being also considerably less developed; and in the abdominal region and the lower tail-coverts being uniform streakless pale green, more or less faintly tinged with verditer; the feathers of the upper parts also are margined with dull verditer, instead of yellowish; and the nasal bristles are yellow at their extreme base."—(Blyth.)

"Very common about Colombo; I have also seen it from Batticaloa, and procured it at Jaffna. It frequents the banian-trees in great numbers, and feeds upon the ripe fruits, swallowing them entire."—(E. L. Layard.)

936. *XANTHOLÆMA ROSEA*, *Cuvier Sp.*

Bucco roseus, *Cuvier*, *Règ. Anim.* (1817), *p.* 428.

Megalaima rosea, *G. R. Gray*, *Gen. of B.* II. *p.* 429. *Bonap.*, *C. G. Av. p.* 143.

Capito rosaceicollis, *Vieillot*. *Temm.*, *Text. de Pl. Col.*

Bucco roseicollis, *Vigors*, *Mem. Raffles*, *p.* 667 (1829). (*Le Vaill.*, *Barb. t.* 33.)

Bucco philippensis, *apud Horsfield*, *Trans. Linn. Soc.* XIII. *p.* 181.

Engku, Java, *Horsfield.*

A. B. *c. d.* Adult and Young. Java. From Dr. Horsfield's Collection.

937. *XANTHOLÆMA MALABARICA, Blyth Sp.*

Bucco malabaricus, *Blyth, J. A. S. Beng.* XVI. *pp.* 386, 465 (1847).

Megalaima malabarica, *Blyth, Cat. B. Mus. A. S. Beng. App. p.* 336.

Bucco barbiculus, *apud Blyth, J. A. S. Beng.* XV. *p.* 13. *Jerdon, Madr. Journ.* XIII. *pt.* 2, *p.* 140.

A. Madras. From Wight's Collection.

"General colour deep green; the forehead, around the eyes, and the throat, crimson, the last margined with yellow; occiput and cheeks pale blue. Length 5 in., of wing $3\frac{1}{8}$ in., tail $1\frac{3}{8}$ in., bill to forehead $\frac{5}{8}$ in., and tarse $\frac{3}{4}$ in."—(Blyth.)

938. *XANTHOLÆMA DUVAUCELLI, Lesson Sp.*

Bucco Duvaucelli, *Lesson, Tr. d'Orn. p.* 164 (1831).

Bucco trimaculatus, *J. E. Gray, Zool. Misc.* (1832), *p.* 3, *t.* 3. *Eyton, P. Z. S.* (1839), *p.* 105. *Blyth, J. A. S. Beng.* XVI. *p.* 465.

Megalaima trimaculata, *G. R. Gray, Gen. of B.* II. *p.* 429. *Blyth, Cat. B. Mus. A. S. Beng. p.* 68. *Bonap., C. G. Av. p.* 143.

Bucco frontalis, *Temm., Pl. Col.* 536, *f.* 1. *Guèrin, Icon. Règ. Anim. Aves, t.* 34.

Bucco australis, *apud Raffles, Trans. Linn. Soc.* XIII. *p.* 285. *Vigors, Mem. Raffles, p.* 667. *Blyth, J. A. S. Beng.* XV. *p.* 13.

Bucco cyanotis, *Blyth, J. A. S. Beng.* XVI. *p.* 465 (1847) (*variety*).

Tanda, Malays, *Eyton.*

Tanhak, Malays, *Blyth.*

Nget-pa-din, Arracan, *Phayre.*

A. ♂. Malacca. From the Asiatic Society of Bengal.

*b. c. d. e.* Adult and Young. Malacca. Presented by Dr. Cantor, 1854.

*f.* (*Cyanotis*, Blyth). Tenasserim. From Helfer's Collection.

*g.* Drawing. From Raffles's Collection.

Inhabits the Malayan peninsula, Sumatra, with a variety in Arracan and Tenasserim, having the ear-coverts of the same verditer-blue as the throat, and the crimson spots much weaker.

939. *XANTHOLÆMA AUSTRALIS, Horsfield Sp.*

Bucco australis, *Horsf., Trans. Linn. Soc.* XIII. *p.* 181 (1820). *Lath., Hist. of B.* III. *p.* 230. *Blyth, J. A. S. Beng.* XVI. *p.* 466.

Megalaima australis, *G. R. Gray, Gen. of B.* II. *p.* 429. *Bonap., C. G. Av. p.* 143.

Bucco gularis, *Reinwardt, Temm. Pl. Col.* 89, *f.* 2. *Cuvier, Règ. Anim.*

Austral Barbet, *Latham.*

Truntung, Java, *Horsfield.*

A. *b.* (type). Java. From Dr. Horsfield's Collection.

Genus Megalorhynchus, *Eyton, P. Z. S.* (1839), *p.* 106.

Caloramphus, *Lesson* (1839).

Psilopus, *Temminck.*

940. *MEGALORHYNCHUS HAYI, J. E. Gray Sp.*

Bucco Hayii, *J. E. Gray, Zool. Misc. p.* 33 (1832).

Megalorhynchus Hayii, *G. R. Gray, Gen. of B.* II. *p.* 431. *Blyth, Cat. B. Mus. A. S. Beng. p.* 69.

Psilopus Hayi, *Bonap., C. G. Av. p.* 141.

Micropogon fuliginosus, *Temminck, Text de Pl. Col.*

Megalorhynchus spinosus, *Eyton, P. Z. S.* (1839), *p.* 106.

Caloramphus sanguinolentus, *Lesson.*

Bucco Lathami, *apud Raffles, Trans. Linn.* XIII. *p.* 284. *Vigors, Mem. Raffles, p.* 667.

Megalorhynchus Lathami, *Blyth, J. A. S. Beng.* XI. *p.* 202.

Caloramphus Lathami, *Blyth, J. A. S. Beng.* XV. *p.* 13.

Hay's Barbet.

Ampis, Sumatra, *Raffles.*

Ariko Berine, Malays, *Eyton.*

Unkot Besea, Penang.

A. *b.* Malacca. From Griffith's Collection.

*c. d. e. f.* Malacca. Presented by Dr. Cantor, 1854.

*g.* Drawing. From Raffles's Collection.

Inhabits the Malayan peninsula, and, according to Sir Stamford Raffles, "the interior of Sumatra."

Genus Trachyphonus, *Ranzini* (1823).

Cucupicus, *Lesson, Tr. d'Orn.* (1831).

Polysticte, *Smith, S. Afr. Journ.* (1835).

Promepicus, *Lafresnaye.*

941. *TRACHYPHONUS MARGARITATUS, Rüpp. Sp.*

Bucco margaritatus, *Rüppell, Zool. Atlas, Aves, p.* 30, *t.* 20 (1826).

Trachyphonus margaritatus, *Rüppell, Syst. Uebers, p.* 95. *Bonap., C. G. Av. p.* 142.

Micropogon margaritatus, *Temm., Pl. Col.* 490.

Capito margaritatus, *G. R. Gray, Gen. of B.* II. *p.* 430.

Tamatia erythropygos, *Ehrenberg.*

A. Abyssinia. From Harris's Collection.

## Subfam. II. PICINA.

Genus Hemicercus, *Swainson, Classif. of B.* II. *p.* 306 (1837).
Micropicus, *Malherbe* (1850).

942. *HEMICERCUS CONCRETUS, Reinwardt Sp.*

Picus concretus, *Reinwardt, Temm., Pl. Col.* 90, *f.* 1, 2. *Wagler, Syst. Av. Pic. sp.* 70. *Lesson, Tr. d'Orn. p.* 221. *G. R. Gray, Gen. of B.* II. *p.* 437. *Blyth, J. A. S. Beng.* XIV. *p.* 195, XXIV. *p.* 272; *Cat. B. Mus. A. S. Beng. p.* 54. *Strickland, P. Z. S.* (1846), *p.* 104. *Bonap., C. G. Av. p.* 129.
Hemicercus concretus, *Swains., Classif. of B.* II. *p.* 306.
Dendrocopus sordidus, *Eyton, Ann. N. H.* XVI. *p.* 229.
Picus Hartlaubii, *Malherbe, MS. Mus. East-Ind. Comp.*

*a. b. c. d.* ♂ ♀. Malacca. Presented by Dr. Cantor, 1854.
E. ♂. (*P. Hartlaubii*, Malh.) Malacca.

943. *HEMICERCUS CANENTE, Lesson Sp.*

Picus canente, *Lesson, Cent. Zool. t.* 73 (1830).
Hemicercus canente, *G. R. Gray, Gen. of B.* II. *p.* 437. *Blyth, J. A. S. Beng.* XV. *p.* 282; *Cat. B. Mus. A. S. Beng.* 54. *Bonap., C. G. Av. p.* 129.
Hemicercus cordatus, *Jerdon, Madr. Journ.* XI. *p.* 211 (1840). *Ill., Ind. Orn. t.* 40.
Heart-spotted Woodpecker, *Jerdon.*

C. D. ♂ ♀. Madras. From Wight's Collection.
*a. b.* ♂ ♀. Tenasserim. From Helfer's Collection.

Inhabits the Burmese countries, and a smaller race in S. India.

Mr. Jerdon states that in S. India "this is found only in the highest forest of Malabar, Travancore, and Canara, frequenting high trees, usually in pairs, or single. Like Woodpeckers generally, it is a wary bird, and being constantly in motion, occasionally eludes the pursuit of the naturalist. Though generally spread through the forests of Western India, it is a rare bird."

Genus Reinwardtipicus, *Bonaparte* (1854).

944. *REINWARDTIPICUS VALIDUS, Reinwardt Sp.*

Picus validus (*Reinwardt*), *Wagler, Syst. Av. Picus Sp.*

13 (1827). *Temm., Pl. Col.* 378 ♂, 402 ♀. *Vigors, Mem. Raffles, p.* 668.

Reinwardtipicus validus, *Bonap.* (1854).

Campephilus validus, *G. R. Gray, Gen. of B.* II. *p.* 436.

Hemilophus validus, *Bonap., C. Gen. Av. p.* 131.

A. ♂. Sumatra. From Raffles's Collection.

*b. c.* ♂ adult and young, *d. e.* ♀. Malacca. Presented by Dr. Cantor, 1854.

Genus MULLERIPICUS, *Bonaparte* (1854).

HEMILOPHUS,* *Swainson, Classif. of B.* II. *p.* 309 (1837).

DRYOPICOS, *2nd div. Malherbe* (1850).

945. *MULLERIPICUS PULVERULENTUS, Temm. Sp.*

♂ Picus pulverulentus,† *Temm., Pl. Col.* 389. *Lesson, Tr. d'Orn. p.* 222. *Vigors, Mem. Raffles, p.* 669.

Hemilophus pulverulentus, *Swainson, Classif. of B.* II. *p.* 309. *Blyth, Cat. B. Mus. A. S. Beng. p.* 54; *J. A. S. Beng.* XXIII. *p.* 215.

Mulleripicus pulverulentus, *Bonap.* (1854).

♀ Picus Mackloti, *Wagler, Syst. Av. Picus Sp.* 4 (1827).

Hemilophus Mackloti, *G. R. Gray, Gen. of B.* II. *p.* 439. *Bonap., C. G. Av. p.* 131.

Picus gutturalis, *Valenciennes.*

♂ Picus javensis (*fœm.*), *Horsf., Trans. Linn. Soc.* XIII. *p.* 176.

♂ Picus Horsfieldii (*fœm.*), *Wagler, Syst. Av. Pic. Sp.* 5.

A. B. ♂. Java. From Dr. Horsfield's Collection.

*c.* ♀. Pinang. Presented by Dr. Cantor, 1854.

*d.* ♂. Malacca. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

"Bill, iris, and feet blackish."—(Dr. Cantor's MS. Notes.)

This is an inhabitant chiefly of the Malayan peninsula, Arracan, Java, and on the continent of India has been found in the Deyra Doon.

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* Preoccupied in Entomology by Serville in 1835.

† Published prior to the appearance of Wagler's Syst. Avium.

946. *MULLERIPICUS JAVENSIS, Horsfield Sp.*

♂ Picus javensis (*male*), *Horsfield, Trans. Linn. Soc.* XIII. *p.* 175 (1821). *Vigors, Mem. Raffles, p.* 668. *Latham, Hist. of B.* III. *p.* 353.

Hemilophus javensis, *G. R. Gray, Gen. of B.* II. *p.* 439. *Blyth, J. A. S. Beng.* XV. *p.* 283 ; *Cat. B. Mus. A. S. Beng. p.* 55. *Bonap., C. G. Av. p.* 131.

Picus leucogaster (*Reinwardt*), *Temm., Pl. Col.* 501, ♂. *Wagler, Syst. Av. Picus Sp.* 7, ♀. *Blyth, J. A. S. Beng.* XI. *p.* 464.

Hemilophus leucogaster, *Motley et Dillwyn, Contr. Nat. Hist. Labuan, p.* 29.

♂ Picus Horsfieldii (*male*), *Wagler, Syst. Av. Picus Sp.* 5 (1827).

Picus Crawfurdii, *J. E. Gray, Griff. An. Kingd. Aves,* II. *p.* 513, *fig.* (1829).

Picus maximus malayensis, *Bland, J. A. S. Beng.* VI. *p.* 952.

Java Woodpecker, *Latham.*

Platuk-ayam, Java, *Horsfield.*

Gulatoh, Malays.

A. ♂ adult. Java. From Dr. Horsfield's Collection.

*b.* ♀ young. Presented by J. Gould, Esq.

*c.* ♀ adult. Malacca. Presented by Dr. Cantor, 1854.

*d.* ♂. Malacca. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

"These birds are not uncommon in Labuan, and frequently fly in small parties of six or eight; they much frequent dead trees, whose bark is just beginning to fall, and are very amusing to watch, being always in motion, and very noisy: they begin rather low down on a tree, moving upwards by jumps with a cry like the chatter of a Magpie to the time of our green Woodpecker's laugh. Perhaps two or three will be ascending one tree at the same time, trying the bark with incessant taps, and wrenching open every likely crack with their powerful chisel-beaks: when they reach the branches, they hold a sort of discussion of tremendous chatter, and then each takes his own branch, and the bark, here being usually more decayed than on the stem, comes down in showers. If you make any loud noise or show yourself suddenly, all disappear in a moment. Perhaps one or

two may fly off with a swift but laborious action of the wings; but the majority hide behind branches. In a minute or so, if all is quiet, you will see a head peer out from behind some snag, and after looking round and seeing nothing, a croak of satisfaction brings out two or three more heads; but not a body is seen till all the heads are perfectly satisfied of their safety: at last they all come out and chatter together most vociferously for a minute or two before they go on feeding. Though apparently so wary, they rarely leave the tree they are examining, even if fired at."—(Messrs. Motley and Dillwyn.)

Genus Chrysocolaptes, *Blyth, J. A. S. Beng.* XII. *p.* 1004 (1843).

Indopicus, *Malherbe* (1850).

947. *CHRYSOCOLAPTES SULTANEUS, Hodgson Sp.*

Picus sultaneus, *Hodgson, J. A. S. Beng.* VI. *p.* 105 (1837). *Gray's Zool. Misc.* (1844), *p.* 85. *Blyth, J. A. S. Beng.* XI. *p.* 105.

Chrysocolaptes sultaneus, *G. R. Gray, Gen. of B.* II. *p.* 436. *Hodgson, Cat. B. of Nepal, p.* 116. *Blyth, Cat. B. Mus. A. S. Beng. p.* 55. *Bonap., C. G. Av. p.* 121.

Picus strenuus (*Gould*), *McClelland, P. Z. S.* (1839), *p.* 165.

♀ Picus guttacristatus, *Tickell, J. A. S. Beng.* II, *p.* 578 (1833).

Picus strictus, *apud Jerdon, Madr. Journ.* XI. *p.* 210. *Blyth, J. A. S. Beng.* XI. *p.* 970.

Chrysocolaptes strictus, *apud Blyth, J. A. S. Beng.* XII. *p.* 1004; XIV. *p.* 191.

The Royal Indian Woodpecker, *Hodgson.*

*a. b.* ♂ ♀. (type). Nepal. Presented by B. H. Hodgson, Esq.

*c.* ♂. Madras. From Wight's Collection.

*d. e.* ♂ ♀. Kumaon. From Capt. R. Strachey's Collection.

F. G. and Drawing (*P. strenuus*, Gould). Assam. From McClelland's Collection.

*h.* ♀. Tenasserim. From Helfer's Collection.

*i. j.* ♂. Pinang. Presented by Dr. Cantor, 1854.

"Inhabits India generally, chiefly the hill forests, being rare in the plains: also Assam, [Bootan,] Sylhet, Arracan, Tenasserim, and Malayan peninsula southward as far as Malacca."—(Blyth.)

Mr. Hodgson remarks that the "young of this species at first resemble the female, and the males do not attain their perfect plumage till the second or third year. It breeds once a year,—in May. It moults also but once, between June and October, both inclusive. Weight, 8 to 9 ounces."

"In Southern India this handsome Woodpecker is found only in the dense and lofty forests of the west coast, occasionally seen below the Ghauts, but most numerous on the more elevated wooded regions, and frequently seen on the summit of the Neilgherries, in the thick woods there. Irides yellow; bill blackish lead-colour; feet plumbeous."—(Jerdon.)

948. *CHRYSOCOLAPTES STRICTUS*, *Horsfield Sp.*

Picus strictus, *Horsf.*, *Trans. Linn. Soc.* XIII. *p.* 176 (1821). *Latham*, *Hist. of B.* III. *p.* 352.

Chrysocolaptes strictus, *G. R. Gray*, *Gen. of B.* II. *p.* 436. *Bonap.*, *C. G. Av. p.* 121. *Blyth*, *Cat. B. Mus. A. S. Beng. App. p.* xviii.

Picus peralaimus (*ex Java*), *Wagler*, *Syst. Av. Sp.* 93.

Picus goënsis, *apud Vigors*, *App. Mem. Raffles*, *p.* 668.

Platuk, Java, *Horsfield*.

A. B. ♂ (type). Java. From Dr. Horsfield's Collection.

Genus Brachypternus, *Strickland*, *P. Z. S.* (1841), *p.* 31.
Brahmapicos, *Malherbe* (1850).

949. *BRACHYPTERNUS AURANTIUS*, *Linn. Sp.*

Picus aurantius, *Linn.*, *S. N.* I. *p.* 174. *Lath.*, *Hist. of B.* III. *p.* 367. *F.* (*B.*) *Hamilton*, *MS.* I. *p.* 28.

Brachypternus aurantius, *Strickland*, *P. Z. S.* (1841), *p.* 31. *Blyth*, *J. A. S. Beng.* XIV. *p.* 194; XV. *pp.* 17, 282; *Cat. B. Mus. A. S. Beng. p.* 56. *G. R. Gray*, *Gen. of B.* II. *p.* 441. *Hodgson*, *Cat. B. of Nepal*, *p.* 117. *Bonap.*, *C. G. Av. p.* 120. *Tytler*, *Ann. N. H.* XIII. *n. s. p.* 367. *Layard*, *Ann. N. H.* XIII. *n. s. p.* 448.

Picus bengalensis, *Linn.*, *S. N.* I. *p.* 175 (*Pl. Enl.* 695).

*Lath., Hist. of B.* III. *p.* 348. *Sundevall, Physiogr. Sällsk.* (1837), *p.*

Brachylophus bengalensis, *Jerdon, Madr. Journ.* XI. *p.* 214.

Picus nuchalis, *Wagler, Syst. Av. Pic. Sp.* 94 (1827).

Picus tibetanus, *Natterer.*

Picus psarodes, *Lichtenstein.*

Picus hemipodius, *Swainson.*

Malacolophus melanochrysos, *Hodgson, J. A. S. Beng.* VI. *p.* 109 (1837).

Brachypternus igniceps, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 85.

Brachypternus dilutus, *Blyth, J. A. S. Beng.* XIV. *p.* 550 (*var.*).

Spotted Indian Woodpecker, *Edwards's B. t.* 182.

Orange Woodpecker, *Latham.*

Bengal Woodpecker, *Latham.*

Golden and black Woodpecker, *Hodgson.*

Yellow-backed Woodpecker, *Layard.*

Sat Ranga, Muttra, *Phillips, MS. p.* 74.

Tachan-cooroovi, Mal., Ceylon, *Layard.*

A. *b.* ♂ ♀. Himalaya. *c.* ♂. Shikarpore. From Griffith's Collection.

*d.* ♀. Scinde (*B. dilutus*, Blyth). Presented by Dr. H. Gould, 1855.

*e.* ♂. Kumaon. From Capt. Strachey's Collection.

*f. g.* ♂ ♀. Bengal. From Dr. Falkner's Collection.

*h.* ♂. Bootan. From Pemberton's Collection.

*i.* ♂. N. E. Bengal. Presented by J. McClelland, Esq.

*j.* ♂ ♀. Drawing. From F. (B.) Hamilton's Collection.

"Common in the vicinity of Calcutta."—(Capt. Tytler.)

"This Woodpecker inhabits the neighbourhood of Calcutta throughout the year. It is very noisy, and builds in the holes of trees. It lays three or four eggs in Jyeshth (May–June), and has the young in Asharh (June–July)."—(F. (B.) Hamilton.)

In Ceylon "this is confined exclusively to the Borassus-growing districts, commencing at Chilaw sparingly, and increasing in numbers

till its knocking resounds from almost every Palmyra tope in the Jaffna peninsula. In these trees it likewise breeds, excavating large holes in the male trees, they being generally softer than the female. In the jungle and among the cocoa-nut plantations of the south and central portion of the island, it is entirely replaced by *Br. ceylonus*, Forster."—(E. L. Layard.)

950. *BRACHYPTERNUS CHRYSONOTUS, Lesson Sp.*

Picus chrysonotus, *Lesson, Tr. d'Orn. p.* 220 (1831).
Brachypternus chrysonotus, *Bonap., C. G. Av. p.* 121.
Brachypternopicus chrysonotus, *Malherbe, Rev. Zool.* (1845), *p.* 404.
Brachypternopicus puncticollis, *Malherbe, MS. Mus. East-Ind. Comp.* (*adult*).
? Brachypternus micropus, *Blyth, J. A. S. Beng.* XIV. *p.* 194 (1845). *Jerdon, Madr. Journ.* XIII. *p.* 139.

A. B. ♂ ♀. (*B. puncticollis*, Malh., type). South India. Donor unknown.

"Found in Southern India, wherever there is plenty of wood or high jungle, and even in groves and gardens in the neighbourhood of well-wooded towns, as I have seen in the Northern Circars and Carnatic. On the bare table-land I have not observed it, but is tolerably plentiful on the west coast, and in the wooded regions on the summit of the Ghauts. It is generally seen single or in pairs. Irides crimson; bill blackish; legs plumbeous."—(Jerdon.)

951. *RRACHYPTERNUS CEYLONUS, Forster Sp.*

Picus ceylonus, *Forster, N. Nat. Forsch.* 13, *pl.* 4.
Brachypternus ceylonus, *Blyth, J. A. S. Beng.* XV. *p.* 282; *Cat. B. Mus. A. S. Beng. p.* 56. *Jerdon, Ill. Ind. Orn. t.* 47. *Layard, Ann. N. H.* XIII. *p.* 449.
Picus erythronotus, *Vieillot, Nouv. Dict. H. N.* XXVII. *p.* 73.
Brachypternus erythronotus, *G. R. Gray, Gen. of B.* II. *p.* 441. *Bonap., C. G. Av. p.* 121.
Picus neglectus, *Wagler, Syst. Av. Pic. Sp.* 99 (1827).
Picus bengalensis (*var.*), *Lath., Hist. of B.* III. *p.* 349.
Kaaralla and Kaberella, Ceylon, *Layard.*

*a.* ♂. Drawing. Ceylon. From Jonville's Collection.

"This species is peculiar to Ceylon, and is very common in the low country. Dr. Kelaart also notes it as 'found in great abundance in Newera Elia.' In habits it precisely resembles *B. aurantius*. Its call is a shrill, stridulous scream, often uttered during its flight, which is maintained by short, rapid jerks, repeated at considerable intervals. Irides red-brown."—(E. L. Layard.)

Genus Chrysonotus, *Swainson, Classif. of B.* II. *p.* 309 (1837).

Tiga, *Kaup* (1836).

Chloropicoides, *Malherbe.*

Brachypternopicus, *Malherbe, Rev. Zool.* (1845), *p.* 400.

952. *CHRYSONOTUS TIGA, Horsfield Sp.*

Picus Tiga, *Horsf., Trans. Linn. Soc.* XIII. *p.* 177 (1821). *Raffles, Trans. Linn. Soc.* XIII. *p.* 290. *Vigors, Mem. Raffles, p.* 669. *Latham, Hist. of B.* III. *p.* 416. *Wagler, Syst. Av. Pic. Sp.* 100.

Chrysonotus tridactylus, *Swainson, Classif. of B.* II. *p.* 309.

Tiga tridactyla, *G. R. Gray, Gen. of B.* II. *p.* 441. *Blyth, J. A. S. Beng.* XIV. *p.* 193; XV. *p.* 17; *Cat. B. Mus. A. S. Beng. p.* 56. *Strickland, P. Z. S.* (1846), *p.* 104. *Bonap., C. G. Av. p.* 120.

Picus javanensis, *Lyngb.*

Picus bengalensis, var. B, *Lath. Hist. of B.* III. *p.* 350.

Tiga Woodpecker, *Latham.*

Tukki Besar, Sumatra, *Raffles.*

A. *b. c. d.* ♂ ♀. Java. From Dr. Horsfield's Collection.

*e. f.* ♂ ♀. Drawings. Sumatra. From Raffles's Collection.

Inhabits Malacca, Sumatra, Java, and Borneo; specimens from the latter country being in the collection of J. Gould, Esq.

953. *CHRYSONOTUS INTERMEDIUS, Blyth Sp.*

Tiga intermedia, *Blyth, J. A. S. Beng.* XIV. *p.* 193 (1845); XV. *p.* 17; *Cat. B. Mus. A. S. Beng. p.* 56. *G. R. Gray, Gen. of B.* III. *App. p.* 22.

Picus Tiga, *apud J. E. Gray, Ill. Ind. Zool.* I. *t.* 30, *f.* 2.

*Blyth, J. A. S. Beng.* X. *p.* 923. *Jerdon* (*part*), *Madr. Journ.* XI. *p.* 216; XIII. *pt.* II. *p.* 139.

? Brachypternopicus rubro-pygialis, *Malherbe, Rev. Zool.* (1845), *p.* 400.

A. ♂ (type). From the Asiatic Society of Bengal.

*b.* ♂. Tenasserim. From Helfer's Collection.

*c. d. e. f.* ♂ ♀. Pinang. Presented by Dr. Cantor, 1854.

"Inhabits Nepal, Assam, Sylhet, Tipperah, Arracan, Tenasserim, Pinang, and Southern India."—(Blyth.)

954. *CHRYSONOTUS SHOREI, Vigors Sp.*

Picus Shorei, *Vigors, P. Z. S.* (1831), *p.* 175. *Gould, Cent. of B. t.* 49. *Jerdon, Madr. Journ.* XIII. *pt.* II. *p.* 139.

Tiga Shorei, *G. R. Gray, Gen. of B.* II. *p.* 441. *Hodgs., Cat. B. of Nepal, p.* 117. *Blyth, J. A. S. Beng.* XIV. *p.* 193; *Cat. B. Mus. A. S. Beng. p.* 56. *Bonap., C. G. Av. p.* 120.

Brachypternus Shorei, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

Shore's Woodpecker.

*a.* ♀ young. Nepal. Presented by B. H. Hodgson, Esq.

"Inhabits the sub-Himalayan region, as well as the hill-ranges of Southern India."—(Blyth.)

Genus ———————— ?

Chrysonotus, *Bonap.* (1854), *nec. Swains.* (1837).

955. *CHRYSONOTUS* (?) *RAFFLESI, Vigors Sp.*

Picus Rafflesi, *Vigors, App. Mem. Raffles, p.* 669 (1829). *Strickland, P. Z. S.* (1846), *p.* 103.

Tiga Rafflesii, *G. R. Gray, Gen. of B.* II. *p.* 441. *Blyth, J. A. S. Beng.* XV. *p.* 16; *Cat. B. Mus. A. S. Beng. p.* 57. *Bonap., C. G. Av. p.* 120.

Chrysonotus Rafflesi, *Bonap.* (1854).

Picus labarum, *Lesson.*

Tiga amictus, *G. R. Gray, Gen. of B.* II. *p.* 441 (1846).

Raffles's Woodpecker.

A. B. ♂ ♀. Malacca. Presented by Dr. Cantor, 1854.

*c.* ♀. Malacca. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

Genus DENDROBATES, *Swains., Classif. of B.* II. *p.* 306 (1837).

956. *DENDROBATES ÆTHIOPICUS, Rüppell Sp.*

Dendromus æthiopicus, *Rüppell, Syst. Uebers. p.* 95, *t.* 36.

Campethera æthiopica, *G. R. Gray, Gen. of B.* II. *p.* 439.

Dendrobates æthiopicus, *Bonap., C. G. Av. p.* 123. *Blyth, J. A. S. Beng.* XXIV. *p.* 299.

DAUDAULAY, Somali, *Burton.*

A. ♂. Abyssinia. From Harris's Collection.

957. *DENDROBATES IMMACULATUS, Swainson.*

Dendrobates immaculatus, *Swainson, B. of W. Afr.* II. *p.* 152. *Rüppell, Mus. Senek.* III. *p.* 119. *G. R. Gray, Gen. of B.* II. *p.* 437. *Blyth, Cat. B. Mus. A. S. Beng. p.* 57. *Bonap., C. G. Av. p.* 125.

A. Abyssinia. From Harris's Collection.

Genus GECINUS, *Boie, Isis* (1831), *p.* 542.

BRACHYLOPHUS, *Swains., Classif. of B.* II. *p.* 308 (1837).

958. *GECINUS GUERINI, Malherbe, Sp.*

Chloropicus Guerinii, *Malherbe, Rev. Zool.* (1849), *p.* 539. *Bonap., C. G. Av. p.* 127.

*a.* ♂. Shanghai. Presented by J. Gould, Esq., Sept. 1856.

959. *GECINUS SQUAMATUS, Vigors Sp.*

Picus squamatus, *Vigors, P. Z. S.* (1830), *p.* 8. *Gould, Cent. of B. t.* 48. *Jardine et Selby, Ill. Orn. t.* 108. *Blyth, J. A. S. Beng.* X. *p.* 923; XII. *p.* 998.

Gecinus squamatus, *G. R. Gray, Gen. of B.* II. *p.* 438. *Blyth, Cat. B. Mus. A. S. Beng. p.* 57. *Bonap., C. G. Av. p.* 127.

Brachylophus squamatus, *Swains., Classif. of B.* II. *p.* 308.

Picus dimidiatus, *apud J. E. Gray, Ill. Ind. Zool.* I. *t.* 29, *f.* 1.

Scaly-bellied Woodpecker.

A. *b.* ♂. Himalaya. From Bax's Collection.

*c. d.* ♂ ♀. Himalaya. From Griffith's Collection.

*e. f.* ♂ ♀. Kumaon. Presented by Capt. R. Strachey.

960. *GECINUS DIMIDIATUS, Temminck Sp.*

Picus dimidiatus, *Temm., Text. de Pl. Col.* 501. *Wagler, Syst. Av. Pic. Sp.* 88 (1827).

Gecinus dimidiatus, *Boie, G. R. Gray, Gen. of B.* II. *p.* 439. *Bonap., C. G. Av. p.* 127.

Brachylophus dimidiatus, *Swainson, Classif. of B.* II. *p.* 308.

Picus vittatus, *Vieillot, Nat. Dict.* XXVI. *p.* 91; *Encycl. Méth. Orn. p.* 1317. *Lesson, Tr. d'Orn. p.* 221.

Picus bengalensis, *apud Horsf., Trans. Linn. Soc.* XIII. *p.* 176.

Picus affinis (*part*), *Vigors, Mem. Raffles, p.* 668.

Platuk-bawang, Java, *Horsfield.*

A. B. *c. d. e. f.* ♂ ♀. Java. From Dr. Horsfield's Collection.

961. *GECINUS VIRIDANUS, Blyth.*

Gecinus viridanus, *Blyth, J. A. S. Beng.* XII. *p.* 1000 (1843); XIII. *p.* 394.

Gecinus dimidiatus, *apud Blyth, Cat. B. Mus. A. S. Beng. p.* 58.

*a. b.* ♂ ♀ (type spec.). Tenasserim. From the Asiatic Society of Bengal.

*c. d.* ♂ ♀. Tenasserim. From Helfer's Collection.

"Common throughout the eastern coast of the Bay of Bengal, as in Arracan and the Tenasserim provinces."—(Blyth.)

962. *GECINUS STRIOLATUS, Blyth.*

Gecinus striolatus, *Blyth, J. A. S. Beng.* XII. *p.* 1000 (1843); *Cat. B. Mus. A. S. Beng. p.* 57. *G. R. Gray, Gen. of B.* II. *p.* 439. *Hodgs., Cat. B. of Nepal, p.* 117. *Jerdon, Madr. Journ.* XIII. *pt.* II. *p.* 138.

Brachylophus xanthopygæus, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 85.

Gecinus xanthopygius, *Bonap., C. G. Av. p.* 127.
? Picus lepidotus, *Natterer.*
Picus squamatus, *apud Jerdon, Madr. Journ.* XI. *p.* 213.

*a. b. c. d.* ♂ ♀. Nepal (*B. xanthopygœus*, Hodgs.). Presented by B. H. Hodgson, Esq.
*e. f.* ♂ adult and young. Himalaya. From Griffith's Collection.
*g.* ♂. Kumaon. Presented by Captain R. Strachey.

Mr. Jerdon remarks, "In S. India I have found this Woodpecker, only on the western coast, in well-wooded districts, from the close neighbourhood and level of the sea to the summit of the Neilgherries, where it is tolerably abundant, both in the thick woods and among the brushwood. It in general does not ascend high on trees, keeping to the lower branches, and I have on several occasions seen it alight on the ground. Irides pink, surrounded by a white circle; bill horny above, yellowish at the base and beneath; feet greenish slaty."

"Inhabits the Himalayas and hilly regions of Southern India, but is rare on the plains."—(Blyth.)

963. *GECINUS OCCIPITALIS, Vigors Sp.*

Picus occipitalis, *Vigors, P. Z. S.* (1830), *p.* 8. *Gould, Cent. of B. t.* 47. *McClelland, P. Z. S.* (1839), *p.* 165. *Blyth, J. A. S. Beng.* XII. *p.* 1002; XIV. *p.* 191.
Gecinus occipitalis, *G. R. Gray, Gen. of B.* II. *p.* 438. *Hodgs., Cat. B. of Nep. p.* 116. *Blyth, Cat. B. Mus. A. S. Beng. p.* 58. *Bonap., C. G. Av. p.* 127.
Brachylophus occipitalis, *Swainson, Classif. of B.* II. *p.* 308.
♀ Picus barbatus, *J. E. Gray, Ill. Ind. Zool.* I. *t.* 31, *f.* 2.
The Moustache Woodpecker, *Gray.*

*a.* ♂. Kumaon. Presented by Captain R. Strachey.
*b.* ♀. Himalaya. From Bax's Collection.
*c. d. e.* ♂ ♀ young. Presented by B. H. Hodgson, Esq.
F. ♂. Assam. From McClelland's Collection.
*g.* ♀. Tenasserim. From Helfer's Collection.

964. *GECINUS AFFINIS, Raffles Sp.*

Picus affinis, *Raffles, Trans. Linn. Soc.* XIII. *p.* 288 (1821). *Vigors* (*part*), *Mem. Raffles, p.* 668.

The Sumatran Moustache Woodpecker.

Tukki Bawang, Sumatra, *Raffles.*

*a. b.* ♂ ♀. Drawings (type). Sumatra. From Raffles's Collection.

Differs from *G. occipitalis* in being smaller, and in the male having the crown and *occiput* crimson, these in the female being *entirely black.* Length 11½ in., of wing 5½ in., middle tail-feathers 4 in., bill to forehead 1⅜ in.

Genus Chrysophlegma, *Gould, B. of Asia, pt.* I. (1849).

965. *CHRYSOPHLEGMA FLAVINUCHA, Gould.*

Picus flavinucha, *Gould, P. Z. S.* (1833), *p.* 120.

Chrysophlegma flavinucha, *Gould, B. of Asia, pt.* I. *fig.* ♂ ♀. *Bonap., C. G. Av. p.* 127.

Gecinus flavinucha, *G. R. Gray, Gen. of B.* II. *p.* 438, *t.* 109. *Hodgs., Cat. B. of Nep. p.* 116. *Blyth, J. A. S. Beng.* XII. *p.* 1003; *Cat. B. Mus. A. S. Beng. p.* 58.

Dryotomus flavigula, *Hodgs., J. A. S. Beng.* VI. *p.* 106 (1837). *Gray's Zool. Misc.* (1844), *p.* 85.

Yellow-naped Woodpecker, *Gould.*

*a. b. c.* ♂. Nepal. Presented by B. H. Hodgson, Esq.

*d. e.* ♂ ♀. Kumaon. From Captain R. Strachey's Collection.

*f.* Drawing, ♀. Assam. Presented by Dr. McClelland, 1856.

*g. h.* ♂. Tenasserim. From Helfer's Collection.

966. *CHRYSOPHLEGMA CHLOROLOPHUS, Vieillot Sp.*

Picus chlorolophus, *Vieillot, Nat. Dict.* XXVI. *p.* 78. *Wagler, Syst. Av. Pic. Sp.* 69.

Chrysophlegma chlorolophus, *Bonap., C. G. Av. p.* 128.

Picus nipalensis, *J. E. Gray, Ill. Ind. Zool.* I. *t.* 31, *f.* 1 (1831). *McClell., P. Z. S.* (1839), *p.* 165.

Gecinus nipalensis, *Blyth, J. A. S. Beng.* XII. *p.* 1003; XIV. *p.* 191; *Cat. B. Mus. A. S. Beng. p.* 58. *G. R. Gray, Gen. of B.* II. *p.* 438. *Tytler, Ann. N. H. n. s.* XIII. *p.* 367.

Chrysophlegma nipalensis, *Bonap., C. G. Av. p.* 128.

Brachylophus seriocollis, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

Chloropicus xanthoderus, *Malherbe, Rev. Zool.* (1845), *p.* 402.

Gecinus xanthoderus, *Hodgs., Cat. B. of Nep. p.* 116.

Yellow-necked Woodpecker, *Latham, Hist. of B.* III. *p.* 365.

*a. b. c. d.* ♂ ♀. Nepal (*P. seriocollis*, Hodgs.). Presented by B. H. Hodgson, Esq.

*e.* ♂. Bootan. From Pemberton's Collection.

F. ♀, and Drawing. Assam. From McClelland's Collection.

"Common on the Himalaya, and occurs rarely on the plains, including the vicinity of Calcutta."—(Blyth.)

Genus Gecinulus, *Blyth, J. A. S. Beng.* XIV. *p.* 192 (1845).

967. *GECINULUS GRANTIA, McClelland Sp.*

Picus (Chrysonotus) Grantia, *McClell., P. Z. S.* (1839), *p.* 165.

Gecinulus Grantia, *Blyth, J. A. S. Beng.* XIV. *p.* 192; *Cat. B. Mus. A. S. Beng. p.* 60.

Tiga Grantia, *G. R. Gray, Gen. of B.* II. *p.* 441. *Bonap., C. G. Av. p.* 120.

A. ♂, and Drawings (type). From Dr. McClelland's Collection.

*b. c.* ♂ ♀. Nepal (No. 889 Hodgs. Cat.). Presented by B. H. Hodgson, Esq., 1853.

"This form is most nearly allied to *Gecinus*, from which it differs in the shortness and lateral compression of its beak and the small size of the feet, which have besides no inner fourth toe. As a peculiar form of Woodpecker, it is very distinct."—(Blyth.)

Colour of the head and neck light yellowish-green, paler and

browner towards the beak, and the crown of the male only dull crimson. Body somewhat brownish-red above, the secondaries and tertiaries having three light-red bars, and the greenish-dusky primaries four or five yellowish bars; tail similarly banded; breast and under-parts dusky-green; bill white, with some dusky at the base of both mandibles; feet apparently dark slaty. Length 9½ in., of wing 5 in., tail 3¾ in., bill to frontal bone 1⅛ in., spread of foot 1¾ in.

Genus Venilia, *Bonap., G. C. Av. p.* 128 (1850).

Brachylophus, *Bonap., C. G. Av. p.* 128 (1850), *nec. Swainson.*

968. *VENILIA PUNICEA, Horsf. Sp.*

Picus puniceus, *Horsf. Trans. Linn. Soc.* XIII. *p.* 170 (1821). *Raffles, Trans. Linn. Soc.* XIII. *p.* 289. *Vigors, Mem. Raffles, p.* 668. *Wagler (part), Syst. Av. Pic. Sp.* 96. *Lesson, Tr. d'Orn. p.* 222. *Temm., Pl. Col.* 423. *Lath., Hist. of B.* III. *p.* 362.

Gecinus puniceus, *G. R. Gray, Gen. of B.* II. *p.* 439. *Blyth, Cat. B. Mus. A. S. Beng. p.* 59.

Brachylophus puniceus, *Bonap., C. G. Av. p.* 128.

Crimson-winged Woodpecker, *Latham.*

Tukki Bajukarap, or Belatu, Sumatra, *Raffles.*

A. *b.* ♀ (type). Java. From Dr. Horsfield's Collection.

C. ♂. Sumatra. From Raffles's Collection.

*d. e.* ♂ ♀. Malacca. Presented by Dr. Cantor, 1854.

The figure of this bird, in Temminck's Pl. Col., is that of the male bird, the female differing only in the absence of the crimson whisker.

969. *VENILIA MINIATA, Forster Sp.*

Picus miniatus, *Forster, Ind. Zool. p.* 14, *t.* 4 ( ). *Gmel., S. N.* I. *p.* 432. *Lath., Ind. Orn.* I. *p.* 241; *Gen. Hist. of B.* III. *p.* 361. *Pennant, Gen. Zool.* IX. *p.* 210, *t.* 35. *Shaw, Nat. Misc. t.* 413. *Lesson, Tr. d'Orn. p.* 222. *Horsf., Trans. Linn. Soc.* XIII. *p.* 176. *Vigors, Mem. Raffles, p.* 669. *Wagler, Syst. Av. Pic. Sp.* 98. *J. E. Gray, Ill. Ind. Zool.* I. *t.* 30, *f.* 1.

Gecinus miniatus, *G. R. Gray, Gen. of B.* II. *p.* 439. *Blyth, Cat. B. Mus. A. S. Beng. App. p.* 336.

Chrysonotus miniatus, *Eyton, P. Z. S.* (1839), *p.* 106.

Brachylophus miniatus, *Bonap., C. G. Av. p.* 128.

Picus malaccensis, *Lath., Ind. Orn.* I. *p.* 241 (1790); *Gen. Hist. of B.* III. *p.* 362. *Blyth, J. A. S. Beng.* XIV. *p.* 192.

Gecinus malaccensis, *Blyth, Cat. B. Mus. A. S. Beng. p.* 59.

Picus rubescens, *Vieillot, Nat. Dict.* XXVII. *p.* 90.

The Red Woodpecker, *Latham.*

Malacca Woodpecker, *Latham.*

Platuk, Java, *Horsf.*

Glato Merra, Malays.

A. Java. From Dr. Horsfield's Collection.

B. and Drawing. Sumatra. From Raffles's Collection.

*c. d. e. f.* Malacca. Presented by Dr. Cantor, 1854.

970. *VENILIA MENTALIS, Temminck Sp.*

Picus mentalis, *Temm., Pl. Col.* 384. *Vigors, Mem. Raffles, p.* 668.

Gecinus mentalis, *G. R. Gray, Gen. of B.* II. *p.* 439. *Blyth, Cat. B. Mus. A. S. Beng. p.* 59.

Brachylophus mentalis, *Bonap., C. G. Av. p.* 129.

Picus gularis, *Temm., Wagler, Syst. Av. Pic. Sp.* 89 (1827).

A. From Finlayson's Collection.

*b. c.* Malacca. Presented by Dr. Cantor, 1854.

*d. e.* Malacca. Reserved from India Collection, Exposition Universelle at Paris, 1855.

Inhabits the Tenasserim provinces, Malayan peninsula, and Sumatra.

971. *VENILIA MELANOGASTER, A. Hay Sp.*

Picus melanogaster, *A. Hay, Madras Journ.* XIII. *pt.* II. *p.* 153 (1844).

Hemicercus melanogaster, *G. R. Gray, Gen. of B.* III. *App. p.* 21.

Picus rubiginosus, *Eyton, Ann. N. H.* XVI. *p.* 229 (1845).

Gecinus rubiginosus, *Blyth, J. A. S. Beng.* XV. *p.* 52; *Cat. B. Mus. A. S. Beng. p.* 59.

Picus porphyromelas, *Boie, Rev. Zool.*

Venilia porphyromela, *Bonap., C. G. Av. p.* 128 (1850).

Glato Gading, Malays, *Dr. Cantor.*

*a. b. c.* ♂ ♀. Malacca. Presented by Dr. Cantor, 1854.

*d. e.* ♀. Malacca. Reserved from India Collection, Exposition Universelle at Paris, 1855.

972. *VENILIA PYRRHOTIS, Hodgson Sp.*

Picus pyrrhotis, *Hodgson, J. A. S. Beng.* VI. *p.* 108 (1837).

Gecinus pyrrhotis, *Blyth, Cat. B. Mus. A. S. Beng. p.* 59.

Meiglyptes pyrrhotis, *G. R. Gray, Gen. of B.* III. *App. p.* 22. *Hodgs., Cat. B. of Nep. p.* 117.

Chloronerpes pyrrhotis, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

The Crimson-eared Woodpecker, *Hodgson.*

*a. b. c. d.* ♂ ♀ (type). Nepal. Presented by B. H. Hodgson, Esq.

E. ♂. Himalaya. From Griffith's Collection.

Genus Micropternus, *Blyth, J. A. S. Beng.* XIV. *p.* 196 (1845).

Phaiopicus, *Malherbe, Rev. Zool.* (1849), *p.* 534.

973. *MICROPTERNUS BADIUS, Raffles Sp.*

Picus badius, *Raffles, Trans. Linn. Soc.* XIII. *p.* 289 (1821). *Lesson, Tr. d'Orn. p.* 222. *Vigors, Mem. Raffles, p.* 669.

Micropternus badius, *Blyth, J. A. S. Beng.* XIV. *pp.* 194, 551; *Cat. B. Mus. A. S. Beng. p.* 61.

Picus brachyurus, *Vieillot, Nat. Dict.* XXVI. *p.* 103 ( ). *Wagler, Syst. Av. Pic. Sp.* 71.

Meiglyptes brachyurus, *G. R. Gray, Gen. of B.* II. *p.* 447.

Phaiopicus brachyurus, *Bonap., C. G. Av. p.* 113.

Picus phacopus, *Malherbe, MS. Mus. East-Ind. Comp.*

Malayan Rufous-Woodpecker.

Tukki Kalabu, Sumatra, *Raffles.*

Glato Ahbos, Malays.

A. and Drawing (types). (*P. badius*, Raffles; *P. phacopus*, Malh.). Sumatra. From Sir S. Raffles's Collection.

*b. c.* ♂ ♀. Malacca. From Griffith's Collection.

*d. e. f.* ♂ ♀. Malacca. Presented by Dr. Cantor, 1854.

"Iris, bill, and feet black."—(Dr. Cantor's MS. Notes.)

974. *MICROPTERNUS PHAIOCEPS, Blyth.*

Micropternus phaioceps, *Blyth, J. A. S. Beng.* XIV. *pp.* 195, 551 (1845); *Ann. N. H.* XX. *p.* 321; *Cat. B. Mus. A. S. Beng. p.* 60. *Tytler, Ann. N. H.* XIII. *n. s. p.* 367.

Meiglyptes phaioceps, *G. R. Gray, Gen. of B.* III. *App. p.* 22.

Picus rufonotus, *Malherbe, MS. Mus. East-Ind. Comp.*

Phaiopicus rufonotus, *Bonap., C. G. Av. p.* 113 (1850).

Phaiopicus Blythii, *Malherbe, Rev. Zool.* (1849), *p.* 534.

Picus rufus, *apud J. E. Gray, Ill. Ind. Zool.* I. *t.* 29, *f.* 2.

Meiglyptes badius, *apud Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

Meiglyptes brachyurus, *apud Hodgs., Cat. B. of Nepal, p.* 117.

Indian Rufous-Woodpecker, *Latham, Hist. of B.* III. *p.* 364.

Raut Tookra, Bengal, *F.* (*B.*) *Hamilton, MS.* I. *p.* 30; II. *p.* 144.

A. B. ♂ ♀. Bengal (type *P. rufonotus*, Malh.). From the Asiatic Society of Bengal.

C. ♀. Assam. From McClelland's Collection.

*b. c. d.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

*e.* ♂. Kumaon. From Captain R. Strachey's Collection.

*f.* ♀. Tenasserim. From Helfer's Collection.

*g.* Drawing, ♂ ♀. From F. (B.) Hamilton's Collection.

"Inhabits Bengal, Nepal, Assam, Tipperah, Arracan, and the Tenasserim provinces."—(Blyth.)

Genus MEIGLYPTES, *Swains., Classif. of B.* II. *p.* 309 (1837).

975. *MEIGLYPTES TRISTIS, Horsfield Sp.*

Picus tristis, *Horsf., Trans. Linn. Soc.* XIII. *p.* 177 (1821). *Raffles, Trans. Linn. Soc.* XIII. *p.* 290. *Vigors, Mem. Raffles, p.* 669. *Lath., Hist. of B.* III. *p.* 352.

Meiglyptes tristis, *Swains., Classif. of B.* II. *p.* 309. *G. R. Gray, Gen. of B.* II. *p.* 447. *Blyth, J. A. S. Beng.* XIV. *p.* 195 ; *Cat. B. Mus. A. S. Beng. p.* 60. *Bonap., C. G. Av. p.* 112.

Hemicercus tristis, *Eyton, P. Z. S.* (1839), *p.* 106.

Picus poicilophus, *Temm., Pl. Col.* 197, *f.* 1. *Wagler, Syst. Av. Pic. Sp.* 68. *Lesson, Tr. d'Orn. p.* 221.

Streaked-crowned Woodpecker, *Latham.*

PLATUK-WATU, Java, *Horsfield.*

TUKKI-BOREH, Sumatra, *Raffles.*

GLATO-BAWAN, Malacca.

A. *b.* ♀ (type). Java. From Dr. Horsfield's Collection.

C. D. ♂ ♀. Malacca. Donor unknown.

*e. f. g. h.* ♂ ♀. Pinang and Malacca. Presented by Dr. Cantor, 1854.

*i.* Drawing. From Raffles's Collection.

976. *MEIGLYPTES BRUNNEUS, Eyton Sp.*

Hemicercus brunneus, *Eyton, P. Z. S.* (1839), *p.* 106.

Meiglyptes brunneus, *G. R. Gray, Gen. of B.* II. *p.* 447. *Bonap., C. G. Av. p.* 113.

Picus marginatus, *Reinwardt, MS.* (1821).

Picus Tukki, *Lesson* (1839).

Picus luridus, *Nitzsch.*

Meiglyptes pectoralis, *apud Blyth, Cat. B. Mus. A. S. Beng. p.* 60.

GLATO ETAM, Malays.

A. B. ♂ ♀. Malacca. Purchased.

*c. d. e. f.* Malacca. Presented by Dr. Cantor, 1854.

## 977. *MEIGLYPTES JUGULARIS, Blyth.*

Meiglyptes jugularis, *Blyth, J. A. S. Beng.* XIV. *p.* 195 (1845); *Cat. B. Mus. A. S. Beng. p.* 60.

*a.* ♂. Tenasserim. From Helfer's Collection.

"Colour black or brown-black, varied with buffy-white, and an obscure dull crimson moustache in the male; occipital feathers elongated and black; neck whitish, more or less deeply tinged with buff, and continued as a streak along each side of the breast in front of the wings; rump also buffy-white, a broad oblique stripe of the same upon the wings; and their nether surface and edge are of this hue, the large alars being broadly banded at base internally, with slight narrow pale bars or series of small spots on their outer surface; forehead, throat, and sometimes crown, more or less speckled or rayed with the same pale colour that variegates the rest of the plumage. Length about 7½ in., of wing 4 in., tail 2⅕ in., bill to forehead ⅞ in., and tarse ¾ in."—(Blyth.)

This species much resembles *Hemicercus canente*, but it is readily distinguished by the very different form of the bill, by the buff-white colour of the nape, and by the rays or specks of the same hue upon its black throat.

Genus Picus, *Linn., S. N.* (1735).

Dryobates, *Boie, Isis* (1826), *p.* 977.

Dendrocopus, *Swains., Classif. of B.* II. *p.* 307 (1837).

Leuconotopicus, *Malherbe, Rev. Zool.* (1845).

Dendrodromas, *Kaup, Nat. Syst. der Eur. Thierw.* (1829).

Piprpicus, *Bonap.* (1854).

## 978. *PICUS MAJOR, Linnæus.*

Picus major, *Linn., S. N.* I. *p.* 176. *Lath., Hist. of B.* III. *p.* 340. *Wagler, Syst. Av. Pic. sp.* 17. *Gould, B. of Eur. t.* 229. *G. R. Gray, Gen. of B.* II. *p.* 435; *Cat. Brit. Birds Brit. Mus. p.* 122. *Blyth, J. A. S. Beng.* XVI. *p.* 466; *Cat. B. Mus. A. S. Beng. p.* 62. *Bonap., C. G. Av. p.* 134.

The Great Spotted Woodpecker, *Bewick.*

*a.* ♀. Europe. Presented by J. Gould, Esq., September, 1856.

979. *PICUS CABANISI, Malherbe.*

Picus Cabanisi, *Malh., Cabanis's Journ. für Ornith.* (1853), *p.* 172. *Gould, B. of Asia, pt.* IX. (1857), *t.*

*a.* ♀. Shanghai. Presented by J. Gould, Esq., Sept., 1856.

*P. Cabanisi.*—Closely allied both in size and general colour to *P. major;* the male differs, however, in the greater extent of the red on the occiput, this red mark assuming a triangular form in *P. Cabanisi*, instead of a straight mark, as in *P. major.*

This species also differs from *P. major* in the greater extent of the red on the centre of the abdomen, which colour does not spread laterally over the abdomen, but runs up in a narrow line almost to the chest. The cheeks, sides of the head, and flanks, which are nearly white in *P. major*, are strongly suffused with brown in *P. Cabanisi.*

Length about 8½ in., of wing 5¼ in., tail 4 in., bill to gape 1¼ in.

Appears to be common about Shanghai, where several specimens were procured by J. R. Reeves, Esq., both sexes being in the collection of J. Gould, Esq.

It is a distinct species from *P. himalayanus.*

980. *PICUS HIMALAYANUS, Jardine et Selby.*

Picus himalayanus, *Jardine et Selby, Ill. Orn.* 1*st ser.* *t.* 116. *G. R. Gray, Gen. of B.* II. *p.* 435. *Blyth, J. A. S. Beng.* XI. *p.* 165; XIV. *p.* 196; XVI. *p.* 466; XVIII. *p.* 803; *Cat. B. Mus. A. S. Beng. p.* 62. *Bonap., C. G. Av. p.* 136.

The Himalayan Woodpecker.

A. B. ♂ ♀. N. W. Himalaya. From Reeves's Collection.

*c.* ♀. Himalaya. From Griffith's Collection.

*d.* ♂. Kumaon. Presented by Captain R. Strachey.

The adult male of this species has the whole coronal and occipital feathers crimson-tipped, and ill-defined whitish frontal band, which is mingled with reddish. The white bars on the primaries are much narrower than in *P. major*, and the black markings on the sides of the neck are less developed and less strongly defined than in *P. major*, descending much less upon the breast, where a ferruginous stain is always perceptible; and the upper third of the ear-coverts is black, instead of their being wholly whitish, as in *P. major.*

Inhabits the N. W. Himalayas.

981. *PICUS SCINDEANUS, Gould, MS.*

*a. b.* ♂ ♀. Shikarpore. From Griffith's Collection.

*c.* ♂. Scinde. Presented by Dr. H. Gould, 1855.

*P. scindeanus, n. s.*—Somewhat allied to *P. medius* of Europe, but is smaller, having the whole of the crown in the male red, as in that species; but the sides, instead of being suffused with rosy red, are dirty white: there is also a broad streak of black running from base of the lower mandible down sides of the neck.

Length $7\frac{1}{2}$ in., of wing $4\frac{5}{8}$ in., tail $3\frac{3}{8}$ in., bill to gape $1\frac{2}{10}$ in., tarse $\frac{3}{4}$ of an inch.

982. *PICUS MAJOROÏDES, Hodgson.*

Picus majoroïdes, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85; *Cat. B. of Nep. p.* 115; *App. p.* 155.

Dendrocopus darjellensis, *Blyth, J. A. S. Beng.* XIV. *p.* 196 (1845).

Picus darjellensis, *Blyth, J. A. S. Beng.* XVI. *p.* 466; *Ann. N. H.* XX. *p.* 321; *Cat. B. Mus. A. S. Beng. p.* 62. *G. R. Gray, Gen. of B.* III. *App. p.* 21. *Bonap., C. G. Av. p.* 136.

Picus Hodgsonii, *Malherbe.*

Hodgson's Spotted Woodpecker.

*a. b. c. d.* ♂ ♀. Nepal (type). Presented by B. H. Hodgson, Esq.

E. F. ♂ ♀. Darjeeling. From Pearson's Collection.

*g.* ♂. Darjeeling (*P. darjellensis*, Blyth). From the Asiatic Society of Bengal.

The adult male of *P. majoroïdes* has a scarlet occipital band more than twice as broad as in *P. major*, and is further distinguished by having broad black central stripes to the feathers of the abdomen, flanks, and sides of the breast, and by the black moustachial stripe not being continued round the ear-coverts; but the fulvescent hue of the latter is continuous with a broad dull golden-fulvous band on the sides of the neck: the lower tail-coverts are of a weak scarlet, and not crimson.

Very common at Darjeeling and Nepal.

983. *PICUS LEUCONOTUS, Bechstein.*

Picus leuconotus, *Bechstein, Nat. Deutschl.* II. *t.* 25, *f.* 1. *Wagler, Syst. Av. Pic. sp.* 19. *Gould, B. of Eur.*

*t.* 228. *G. R. Gray, Gen. of B.* II. *p.* 435. *Blyth, Cat. B. Mus. A. S. Beng. p.* 62. *Bonap., C. G. Av. p.* 135.

Dendrodromas leuconotus, *Kaup, Nat. Syst. der Eur. Thierw. p.*

Pipripicus leuconotus, *Bonap.* (1854).

*a.* ♀. N. Europe. Presented by J. Gould, Esq., Sept., 1856.

984. *PICUS MACEI, Vieillot.*

Picus Macei, *Vieillot, Nat. Dict.* XXVI. *p.* 80. *Temm., Pl. Col.* 59, *f.* 2. *Lesson, Tr. d'Orn. p.* 220. *Sundevall, Phys. Sällsk. Tidsk.* (1837), *p.* ; *Ann. N. H.* XVIII. *p.* 309. *J. E. Gray, Ill. Ind. Zool.* I. *t.* 32. *McClell., P. Z. S.* (1839), *p.* 165. *G. R. Gray, Gen. of B.* II. *p.* 435. *Hodgs., Cat. B. of Nep. p.* 115. *Blyth, J. A. S. Beng.* XIV. *p.* 196; XVIII. *p.* 804; *Cat. B. Mus. A. S. Beng. p.* 62. *Bonap., C. G. Av. p.* 135.

Dendrocopus pyriceps, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

Picus medius (*ex India*), *Lath., Hist. of B.* III. *p.* 342. *F.* (*Buch.*) *Hamilton, MS.* I. *p.* 29.

Mace's Woodpecker.

Kat Tokra, Bengal, *F.* (*B.*) *Hamilton.*

A. B. ♂ ♀. Assam. From McClelland's Collection.

*c. d. e. f.* ♂ ♀. Nepal (*P. pyriceps*, Hodgs.). Presented by B. H. Hodgson, Esq.

*g.* ♂. Drawing. From F. (Buch.) Hamilton's Collection.

"Inhabits Northern India generally, and is exceedingly common in Lower Bengal."—(Blyth.)

985. *PICUS ANALIS, Temminck.*

Picus analis, *Temm., MS. Mus. East-Ind. Comp.* (1822). *Bonap., C. G. Av. p.* 137. *Blyth, J. A. S. Beng.* XVIII. *p.* 804.

Picus Wagleri, *Hartlaub, Cat. Brem. Mus. Vögel. G. R. Gray, Gen. of B.* II. *p.* 435.

Picus minor (var. B), *Lath., Ind. Orn.* I. *p.* 230; *Gen. Hist. of B.* III. *p.* 345.

Picus minor, *apud Horsf., Trans. Linn. Soc.* XIII. *p.* 177.

Picus Macei, *apud Wagler, Syst. Av. Pic. sp.* 26.

Horsfield's Lesser-spotted Woodpecker.

Platuk-lallar, Java, *Horsfield.*

*a. b. c.* ♂ ♀ (type). Java. From Dr. Horsfield's Collection.

Allied to *P. Macei*, but differs in being smaller, and having the *whole of the rectrices* spotted.

Length nearly 6 in., of wing $3\frac{5}{8}$ in., tail $2\frac{1}{2}$ in., bill to gape $\frac{11}{12}$ in., and tarse $\frac{5}{12}$ in.

986. *PICUS CATHPHARIUS, Hodgson Sp.*

Dendrocopus cathpharius, *Hodgson, J. A. S. Beng.* XII. *p.* 1006 (1843). *Gray's Zool. Misc.* (1844), *p.* 85.

Picus cathpharius, *Blyth, J. A. S. Beng.* XIV. *p.* 196; *Cat. B. Mus. A. S. Beng. p.* 63. *G. R. Gray, Gen. of B.* II. *p.* 435. *Hodgs., Cat. B. of Nep. p.* 115.

The Nepal Woodpecker, *Gray.*

*a. b. c. d.* ♂ ♀ (type). Nepal. Presented by B. H. Hodgson, Esq.

E. F. ♂. Bootan. From Pemberton's Collection.

Upper parts black, with a white wing-patch, and series of white spots on both webs of the large alars; lower parts fulvescent-brown, the feathers below the fore-neck having mesial black streaks; a black stripe from the lower mandible along the sides of the neck, and above it a whitish stripe through the eyes to the ear-coverts inclusive, commencing on the sides of the forehead; the two outer tail-feathers barred with whitish, and the next one spotted with the same on its outer web only; occiput in the male crimson, extending laterally behind the ear-coverts to the black streak below them, and tending to be continuous into a gorget on the breast, where the feathers have a crimson tinge, as also have the under tail-coverts. The female has the occiput black, the sides of the nape behind the ear-coverts being deeply tinged with crimson.

Length about 7 in., of wing 4 in., tail $2\frac{3}{4}$ in., bill to forehead $\frac{7}{8}$ in., and tarse $\frac{3}{4}$ in.

Genus Leiopicus, *Bonap.* (1854).

987. *LEIOPICUS MAHRATTENSIS, Latham Sp.*

Picus mahrattensis, *Lath., Ind. Orn. Sup. p.* 31 (1801); *Gen. Hist. of B.* III. *p.* 356. *F.* (*Buch.*) *Hamilton, MS.* II. *p.* 142. *J. E. Gray, Ill. Ind. Zool.* I. *t.* 32, *f.* 2. *Gould, Cent. of B. t.* 51. *Sykes, P. Z. S.* (1832), *p.* 97. *G. R. Gray, Gen. of B.* II. *p.* 435. *Jerdon, Madr. Journ.* XI. *p.* 212. *Blyth, J. A. S. Beng.* XIV. *p.* 196; *Cat. B. Mus. A. S. Beng. p.* 62. *Bonap., C. G. Av. p.* 135. *Layard, Ann. N. H.* XIII. *n. s. p.* 448.

Leiopicus mahrattensis, *Bonap.*

Picus hæmosomus, *Wagler, Syst. Av. Pic. sp.* 30 (1827).

Picus aurocristatus, *Tick., J. A. S. Beng.* II. *p.* 579 (1833).

Mahratta Woodpecker, *Latham.*

Red-bellied Woodpecker, *Jerdon.*

A. B. ♂ ♀. Dukhun. Presented by Colonel Sykes.

C. D. ♂. Darjeeling. From Pearson's Collection.

"Inhabits the hilly regions of India generally, but never on the alluvium of Lower Bengal."—(Blyth.)

"This is the most universally spread of all the peninsular species of Woodpecker. I have seen it, though rarely, in the Carnatic; frequent on the wooded west coast, though not in the denser jungles; and even occasionally met with it in groves of trees in the bare Deccan. I have seen it, also, on the summit of the Neilgherries. I found it most abundant in the Wulliar jungle, in the gap of Coimbatore. Irides fine lake-colour, bill and legs slaty."—(Jerdon.)

In Ceylon, says Mr. Layard, it is "confined to the northern province, and found principally about the dead limbs of the *Euphorbia* trees. I have not seen more than half a dozen specimens."

988. *LEIOPICUS BRUNNIFRONS, Vigors Sp.*

Picus brunnifrons, *v.* auriceps, *Vigors, P. Z. S.* (1831), *pp.* 44, 176. *Gould, Cent. of B. t.* 52. *G. R. Gray, Gen. of B.* II. *p.* 435. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85; *Cat. B. of Nepal, p.* 115. *Blyth, J. A. S. Beng.* XIV. *p.* 196; *Cat. B. Mus. A. S. Beng. p.* 62. *Bonap., C. G. Av. p.* 135.

The Orange-fronted Woodpecker, *Gray.*

A. ♂. Himalaya. From the Asiatic Society of Bengal.

*b.* ♂. Pushut. From Griffith's Collection.

*c. d.* ♂ ♀. Kumaon. From Capt. R. Strachey's Collection.

*e. f.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

Genus Hypopicus, *Bonap.* (1854).

989. *HYPOPICUS HYPERYTHRUS, Vigors Sp.*

Picus hyperythrus, *Vigors, P. Z. S.* (1831), *p.* 23. *Gould, Cent. of B. t.* 50. *G. R. Gray, Gen. of B.* II. *p.* 435. *Blyth, J. A. S. Beng.* XIV. *p.* 196; *Cat. B. Mus. A. S. Beng. p.* 63. *Hodgs., Cat. B. of Nepal, p.* 115. *Bonap., C. G. Av. p.* 136.

Dendrocopus hyperythrus, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

Hypopicus hyperythrus, *Bonap.* (1854).

*a. b.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

*c.* ♂. Himalaya. From the Asiatic Society of Bengal.

Genus Yungipicus, *Bonap.* (1854).

990. *YUNGIPICUS MOLUCCENSIS, Gmelin Sp.*

Picus moluccensis, *Gmelin, S. N.* I. *p.* 439. (*Pl. Enl.* 748, *f.* 2.) *Lath., Hist. of B.* III. *p.* 358. *Lesson, Tr. d'Orn. p.* 221. *Vigors, Mem. Raffles, p.* 669. *G. R. Gray, Gen. of B.* II. *p.* 435 (*exclus. syn.*). *Blyth, J. A. S. Beng.* XV. *p.* 14; *Cat. B. Mus. A. S. Beng. p.* 63. *Bonap., C. G. Av. p.* 137.

Tripsurus auritus, *Eyton, Ann. N. H.* XVI. *p.* 229 (1845).

Picus minor (*part*), *apud Horsf. Trans. Linn. Soc.* XIII. *p.* 177. *Raffles, Trans. Linn. Soc.* XIII. *p.* 290.

Tukki Lilit, Sumatra, *Raffles.*

A. *b.* Java. From Dr. Horsfield's Collection.

*c.* Drawing. From Sir Stamford Raffles's Collection.

*d.* Malacca. Presented by Dr. Cantor, 1854.

"As compared with the Indian species (*Y. variegatus*, Wagl.), this has rather larger bill and feet; the crown is darker-coloured, passing to blackish, or deeply infuscated, on the occiput and median line of

nape; the wings are shorter, and there is a difference in the barring of the tail-feathers, and in the form of the tips of the more outer ones, which in the Indian bird are more rounded, or somewhat truncated, with a slight emargination at the tip of the shaft, while in the Javanese bird they attenuate, and are obtusely pointed; the white bars also assume more the appearance of transverse bands in the Javanese species, and of separated round spots in that of the Indian, while the outermost feather is in the former tipped with white, and the penultimate has an all but terminal white bar, both these feathers in the Indian bird being broadly black-tipped, with a more interrupted white bar above."—(Blyth.)

991. *YUNGIPICUS PYGMÆUS, Vigors Sp.*

Picus pygmæus, *Vigors, P. Z. S.* (1831), *p.* 44. *Blyth, J. A. S. Beng.* XIV. *p.* 197; XVI. *p.* 466; *Ann. N. H.* XX. *p.* 321; *Cat. B. Mus. A. S. Beng. p.* 63. *Bonap., C. G. Av. p.* 135.

Picus trisulensis, *Lichtenstein.*

Picus Mitchellii, *Malherbe, Rev. Zool.* (1849), *p.* 530.

Dendrocopus moluccensis, *apud Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

Picus Zizuki, *apud Hodgson's Cat. B. of Nep. p.* 116.

A. B. ♂ ♀ (type specimens of *P. Mitchelli*, Malh.). From Blagrave's Collection.

*c. d. e.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

"The male of this species has a crimson occipital crescent, the lateral halves of which unite only in fine old specimens; in younger examples this crimson is confined to a mere lateral tuft, and I have seen specimens in every degree intermediate. Forehead and crown ashy-brown, the crimson of the occiput surrounded with black externally, forming a streak over each eye, continued to meet and expand posteriorly. Another and brownish-black streak, more or less developed, passes backward from below the eye; and between this and the last is a large triangular white patch on the sinciput. Upper parts black, with white cross-bands on the back, and the usual rows of white spots on the wings; four middle tail-feathers wholly black, and the next white only on its exterior margin; outermost and penultimate tail-feathers barred on the outer web with white, and having a single white bar, and sometimes two, crossing the feather towards its

tip; upper tail-coverts spotless black; throat dull white; the rest of the under parts brownish-white, with narrow dark central lines to the feathers. The hoary-grey colour upon the back mentioned in Mr. Vigors's description must refer to that of the base of the feathers, as shown in a specimen thin of plumage."—(Blyth.)

Length 5½ in., of wing 3¼ to 3½ in., tail 1⅞ to 2 in.

Common in the Himalaya.

992. *YUNGIPICUS CANICAPILLUS*, *Blyth Sp.*

Picus canicapillus, *Blyth, J. A. S. Beng.* XIV. *p.* 197 (1845); XVI. *p.* 467; XVIII. *p.* 805; *Cat. B. Mus. A. S. Beng. p.* 64.

*a. b.* ♂ ♀ (type). Arracan. From the Asiatic Society of Bengal.

*c. d.* ♂ ♀. Tenasserim. From Helfer's Collection.

"Differs from *P. moluccensis* in having the entire crown light brownish-grey, with only a little black margining the occiput; the ear-coverts are also pale brown instead of brownish-black, and the beak is chiefly or wholly whitish. These are slight distinctions, and yet they appear to be constantly characteristic of the race from Arracan and Tenasserim, while the Malayan peninsula race is undistinguishable from that of Java."—(Blyth.)

Genus Vivia, *Hodgson, J. A. S. Beng.* VI. *p.* 107 (1837).

Piculus, *Hodgs., J. A. S. Beng.* X. *p.* 29 (1841), *nec. J. Geoffrey.*

993. *VIVIA INNOMINATA*, *Burton Sp.*

Picumnus innominatus, *Burton, P. Z. S.* (1835), *p.* 154. *Blyth, J. A. S. Beng.* XII. *p.* 1005; *Cat. B. Mus. A. S. Beng. p.* 65. *G. R. Gray, Gen. of B.* II. *p.* 432. *Hodgs., Cat. B. of Nep. p.* 114.

Vivia innominata, *Bonap., C. G. Av. p.* 140.

♂ Vivia nipalensis, *Hodgs., J. A. S. Beng.* VI. *p.* 107 (1837).

Piculus nipalensis, *Hodgs., J. A. S. Beng.* X. *p.* 29. *Gray's Zool. Misc.* (1844), *p.* 85.

♀ Piculus rufifrons, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

Wee Wee, Nepal, *Hodgson.*

*a. b.* ♂ ♀ (*P. nipalensis* et *rufifrons*, Hodgs.). Nepal. Presented by B. H. Hodgson, Esq.

*c.* ♀. Himalaya. From Blagrave's Collection.

"Tongue and feet *picine;* weight ½ an ounce."—(Hodgson.)

Genus Sasia, *Hodgson, J. A. S. Beng.* V. *p.* 778 (1836).
Microcolaptes, *G. R. Gray, List Gen. of B.* (1840).
Comeris, *Hodgs., J. A. S. Beng.* X. *p.* 27 (1841).
Picumnoides, *Malherbe.*
Picumnus, 2*nd div. Temminck.*

994. *SASIA ABNORMIS, Temminck Sp.*

Picumnus abnormis, *Temm., Pl. Col.* 371, *f.* 3. *Lesson, Tr. d'Orn. p.* 231.

Sasia abnormis, *G. R. Gray, Gen. of B.* II. *p.* 433. *Blyth, Cat. B. Mus. A. S. Beng. p.* 65. *Bonap., C. G. Av. p.* 140.

Microcolaptes abnormis, *G. R. Gray, List of Gen. of B.* (1840), *p.* , *et* (1841) *p.* 70. *Blyth, J. A. S. Beng.* XIV. *p.* 191.

*a.* Malacca. In exchange.

995. *SASIA OCHRACEA, Hodgson.*

Sasia ochracea, *Hodgs., J. A. S. Beng.* V. *p.* 778 (1836); *Cat. B. of Nep. p.* 115. *G. R. Gray, Gen. of B.* II. *p.* 433. *Blyth, J. A. S. Beng.* XII. *p.* 1005; *Cat. B. Mus. A. S. Beng. p.* 65. *Bonap., C. G. Av. p.* 140.

Comeris ochracea, *Hodgs., J. A. S. Beng.* X. *p.* 27. *Gray's Zool. Misc.* (1844), *p.* 85.

Microcolaptes ochracea, *Blyth, J. A. S. Beng.* XIV. *p.* 191.

Sasya, Nepal, *Hodgson.*

*a. b. c. d.* (type). Nepal. Presented by B. H. Hodgson, Esq.

*e.* Drawing. Assam. From McClelland's Collection.

"Tongue as in *Picus;* orbits nude, and a transverse corneous opercule before the eye; iris brown; bill plumbeous, with a dusky

ridge; orbitar skin plumbeous; weight $\frac{1}{3}$ of an ounce. Sexes alike. Inhabits the forests of the lower regions of Nepal."—(Hodgson.)

"Common in the hill-ranges of Nepal, Sikim, Assam, Sylhet, and Arracan, being generally seen hopping from twig to twig of bushes or low branches of trees, though occasionally climbing like an ordinary Woodpecker."—(Blyth.)

## Subfam. III. YUNCINA.

### Genus YUNX, *Linn., S. N.* (1748).

TORQUILLA, *Brisson, Orn.* IV. *p.* 3 (1760).
JYNX, *Linn., Fauna Suec.* (1746).

### 996. *YUNX TORQUILLA, Linn.*

Yunx torquilla, *Linn., S. N.* I. *p.* 172. *Lath., Hist. of B.* III. *p.* 332. *Gould, B. of Eur. t.* 233. *McClell., P. Z. S.* (1839), *p.* 165. *Jerdon, Madras Journ.* XI. *p.* 217. *G. R. Gray, Gen. of B.* II. *p.* 448; *List of Brit. B. in Brit. Mus. p.* 125. *Blyth, J. A. S. Beng.* XVI. *p.* 467; *Cat. B. Mus. A. S. Beng. p.* 65. *Bonap., C. G. Av. p.* 112. *Tytler, Ann. N. H.* XIII. *p.* 367.

Jynx torquilla, *Linn., Fauna Suec. p.* 34.

The Wryneck, *Bewick.*

GARDAN EYENGTHA, Hind., *F.* (*B.*) *Hamilton.*

*a.* Calcutta. From the Asiatic Society of Bengal.

*b. c. d.* Nepal. (No. 894, Hodgs. Cat.) Presented by B. H. Hodgson, Esq., 1853.

*e.* Drawing. Assam. From McClelland's Collection.

*f.* Drawing. From F. (B.) Hamilton's Collection.

"Common in many parts of India. I have observed these birds in tolerable abundance upon some of the partially-cultivated alluvial islands up the river Hoogly, and have shot it near Midnapore, in the act of running up the perpendicular bole of a tree, in the manner of a Woodpecker. It is very seldom that the Wryneck is seen to climb; but in England I once winged one of these birds, and placing it on the trunk of a tree, it immediately ascended with such celerity

that I nearly lost it, pressing its soft tail against the bark, as the stiff tail of a Woodpecker or Tree-creeper is applied."—(Blyth.)

"During the cold season, numbers of the Wryneck are found about orchards and gardens near Barrackpore."—(Captain R. C. Tytler.)

"This bird frequents the thickest forests on the Mongyr hills during the whole year, but is very seldom seen. It lives almost entirely upon ants."—(F. (B.) Hamilton, MS. II. p. 146.)

## Subfam. IV. INDICATORINA.

Genus Indicator, *Vieillot, Analyse, p.* 28 (1816).

### 997. *INDICATOR SPARMANNI, Stephens.*

Indicator Sparmanni, *Stephens, Shaw's Zoology. G. R. Gray, Gen. of B.* II. *p.* 451. *Bonap., C. G. Av. p.* 100.

Cuculus Indicator, *Gmel., S. N.* I. *p.* 418.

Sparmann's Honey-guide.

A. Cape of Good Hope. Presented by Dr. Horsfield.

"The species of this genus inhabit the wooded districts of Africa, and the forests of India, and the island of Borneo. They are usually observed in pairs in the neighbourhood of nests of wild bees, which are formed in the trunks of trees. The honey stored up by these insects is the chief food of the birds, who often pay dearly for attacking the nest, being sometimes found dead in the hives, having been stung to death; in which case the bees cover in the body with a vault of wax, that they may not be incommoded by its presence. Their flight is heavy, and continued only for a short distance at a time. They utter a continued cry, which makes them easy of discovery. The nest is formed in the holes of trees. The female deposits three or four eggs, and the male assists in the hatching." — (Gray's Genera of Birds.)

"The affinities of this genus," remarks Mr. Blyth, "I have long considered to be with the Woodpeckers, and not with the Cuckoos. Their feet are formed exactly as in the former group, not as in the latter; and they are accordingly known to climb the boles of trees, in the cavities of which they deposit numerous shining white eggs,

wherein also they resemble the Woodpeckers. I am unacquainted with the conformation of their soft parts, further than that the traveller Bruce informs us, of his 'Bee Cuckoo' (Appendix to Travels to discover the Source of the Nile, v. 179), that 'the tongue is sharp-pointed, can be drawn to almost half its length out of the mouth beyond the point of the beak, and is very flexible;' a statement which I did not remark until long after I had arrived at the opinion here expressed. If my view be correct, it will probably be further confirmed by the stomach proving to have its muscular coat considerably more developed than in the Cuckoos; by the absence of *cæca*, as in the Woodpeckers (normally),—these existing in all the Cuckoo tribe which I have examined; and by the sternal apparatus, the form of which is very different in the Woodpeckers and the Wryneck from what it is in the Cuckoos."—(J. A. S. Beng. (1842), p. 167.)

October 1st, 1856.

## Fam. IV. CUCULIDÆ, *Leach.*

### Subfam. II. CENTROPINA.

Genus Centropus, *Illiger*, *Prod. &c. p.* 205 (1811).
Polophilus, *Leach* (1814).
Corydonix, *Vieillot*, *Analyse* (1816).

998. *CENTROPUS SUPERCILIOSUS*, *Rüppell.*

Centropus superciliosus, *Rüppell*, *Fauna Abyss. t.* 21, *f.* 1; *Syst. Uebers. p.* 96. *G. R. Gray*, *Gen. of B.* II. *p.* 455. *Bonap.*, *C. G. Av. p.* 107.

A. ♀. Abyssinia. From Harris's Collection.

999. *CENTROPUS MONACHUS*, *Rüppell.*

Centropus monachus, *Rüppell*, *Fauna Abyss. t.* 21, *f.* 2; *Syst. Uebers. p.* 96. *G. R. Gray*, *Gen. of B.* II. *p.* 455. *Bonap.*, *C. G. Av. p.* 107.

A. ♂. Abyssinia. From Harris's Collection.

1000. *CENTROPUS RUFIPENNIS*, *Illiger.*

Centropus rufipennis, *Illiger* (*Berlin Trans.* 1812). *Strickland.* *Blyth* (*Theobald*), *J. A. S. Beng.* XXIV. *p.* 530.

Centropus philippensis, *Cuvier, Règ. Anim. p.* 426. *Horsf., Zool. Res. Java, p. t.* 60. *Sykes, P. Z. S.* (1832), *p.* 98. *Sundevall, Physiogr. Sällsk. Tidsk.* (1837); *Ann. N. H.* XVIII. *p.* 401. *McClell., P. Z. S.* (1839), *p.* 166. *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85; *Cat. of B. of Nepal, p.* 118. *G. R. Gray, Gen. of B.* II. *p.* 455. *Blyth, J. A. S. Beng.* XI. *p.* 1099; XII. *p.* 246; XIV. *p.* 202; *Ann. N. H.* (1847), *p.* 385; *Cat. B. Mus. A. S. Beng. p.* 78. *Bonap., C. G. Av. p.* 107. *Tytler, Ann. N. H.* XIII. *n. s. p.* 368. *Layard, Ann. N. H.* XIII. *n. s. p.* 450. *Burgess, P. Z. S.* (1854), *p.* 257. *Motley et Dillwyn, Nat. Hist. of Labuan, p.* 54.

Corydonyx pyrrhopterus, *Vieillot.*

Centropus pyrrhopterus, *Jerdon, Madras Journ.* XI. *p.* 224.

Centropus bubutus, *Horsf., Trans. Linn. Soc.* XIII. *p.* 180 (1820). *Lath., Hist. of B.* III. *p.* 241.

Centropus castanopterus, *Stephens, Shaw's Zool.* IX. *p. . Helfer, J. A. S. Beng.* VII. *p.* 862.

Centropus fasciatus, *C. W. Smith; Pearson, J. A. S. Beng.* X. *p.* 659 (1841).

Chestnut Cuckoo, *Latham, Hist. of B.* III. *p.* 243, *t.* 54.

Crow Pheasant of Europeans in India, *Jerdon.*

Mahuka, Hind., *Franklin. Jerdon. Blyth.*

Karmowa, Monghyr, *Theobald.*

Kuka, Bengal, *Blyth.*

Bubut, Java, *Horsfield.*

Atti-cuccula, Ceylon, *Layard.*

Chempagam, Mal., Ceylon, *Layard.*

*a. b.* Dukhun. Presented by Colonel Sykes.

*c.* Central India (Saugur). From W. T. Hooper, Esq.

*d.* Scinde. Presented by Dr. H. Gould, 1855.

*e.* Nepal. Presented by B. H. Hodgson, Esq.

*f.* Saharunpore. From Dr. Royle's Collection.

*g. h. i.* Young ♂ ♀. Bengal. From Dr. Falconer's Collection.

*j. k. l.* Adult and young. N. E. Bengal. *m.* Drawing, ♂. Assam. From McClelland's Collection.

*n.* Drawing. From F. (Buchanan) Hamilton's Collection.

*o.* Java. From Dr. Horsfield's Collection.

*p.* Drawing. Ceylon. From Joinville's Collection.

"The Crow Pheasant is a common and universally-spread bird, frequenting wooded and cultivated grounds in all parts, and found also in the more open spaces of thick jungles. It is often seen in thick hedges, also in woody nullahs, and in low bushy tracts. It feeds on the ground chiefly, walking and running with great facility, and picking up various large insects, centipedes, lizards, and even scorpions and small snakes. It may often be seen walking along the bank of a dry tank, a bund of a paddy-field, and, being a remarkably slow and stupid bird, and of slow flight, it is occasionally run down, or even caught by the hand, in sufficiently open ground. A good Shikra (*Accipiter Dussumieri*) will easily strike it down. It has a deep sonorous call, something like *whoot, whoot, whoot*, which is often heard in a thick bush or hedge, while the bird itself remains unseen. Irides crimson-red. Builds a very large nest in some thick bush or hedge, and lays two or three greenish-blue eggs. This I have on the authority of an excellent shikaree. It occasionally pilfers eggs from the nests of other birds."—(Jerdon.)

"Common in the vicinity of Calcutta. The young bird almost constantly repeats a strange hoarse sound, like a person choking (a sort of *guk, koh-koh*), which is not pleasant to hear. When running up the bough of a tree, which it does with remarkable celerity, it often throws the tail up over the back."—(Blyth.)

"This bird is very common in villages and cultivated rice-fields in Assam, and in low inundated lands along the banks of rivers. It is tame even in the most deserted places in which it is found, and seldom flies; but if pressed too closely, it rather forces its way into a thick hedge. It delights in moist, humid climates, as is proved by the vast numbers of them which occur in the Sunderbunds. I am informed that they are common at Moulmein, on the Tenasserim coast. They have a very peculiar suppressed note, resembling *whono*, uttered with such a degree of ventriloquism, that although you see the individual from which the sound escapes, you do not suspect it as the cause."—(McClelland.)

"This bird has acquired the appellation of Crow Pheasant from a

considerable resemblance to that bird in its mode of running, of crouching, and secreting itself in bushes, and from its taking wing in the same bustling way. It feeds upon insects, grubs, and, when opportunity occurs, upon carrion."—(C. W. Smith.)

"In the Tenasserim provinces this is one of the commonest inhabitants near human abodes."—(Dr. Helfer.)

"In Ceylon it is universally distributed. On the ground it marches about with a pompous air and outspread tail, scanning every blade of grass, and making short but rapid darts upon the various insects which fly up at its approach. When of its own free will it resorts to a tree, it flies slowly, sailing along on its rounded wings, frequently progressing sideways: on reaching its destination, it jerks up its tail, uttering its monotonous cry of *whoot, whoot, whoot*, and climbs about the branches, beating the bark for *Phasmiæ* and other insects, which trust to their resemblance to the vegetable world for escape from the bills of their numerous enemies. On being alarmed, it scrambles rapidly to the summit of the tree in perfect silence, and glides away in a contrary direction to that whence the cause of its terror sprung."—(E. L. Layard.)

"Not an uncommon bird about Labuan, frequenting low damp places, &c."—(Messrs. Motley and Dillwyn.)

"Nest placed in dense trees, being a neat but loose structure of twigs domed, and with aperture in the side lined with dried leaves. Eggs pure white: June; four; oval."—(W. Theobald, Junr.)

"The sexes of this bird do not differ in size nor plumage. It inhabits the most dense trees. Its call is a deep-toned *hoop, hoop, hoop*. A snake 8 inches long, a lizard 13 inches long (the head of the latter being in the stomach, and partly decomposed, and the rest in the œsophagus), many grasshoppers, bugs, beetles, and small lizards, were found in the stomachs of several specimens. Tongue broad and fleshy, with a concave notch at the tip; irides rich lake. In a specimen examined anatomically, the intestinal canal was 22 inches long; duodenum a little wider than the intestine; colon 3 inches long; cæca linear club-shaped, 2 inches long; liver of two lobes, without fissures, one of them very considerably larger than the other; gall-bladder not observed; spleen 1 inch long, subligulate, of a reddish colour; stomach very large, a mere bag. The following were the contents of the stomach of this solitary bird; viz., 18 slugs (*Limax*), each fully an inch long; a grasshopper 3 inches long; a bug, two beetles, and a centipede $2\frac{1}{2}$ inches long."—(Col. Sykes, MS. Reports on the Dukhun, p. 381, 1831.)

1001. *CENTROPUS EURYCERCUS, A. Hay.*

Centropus eurycercus, *A. Hay, J. A. S. Beng.* XIV. *p.* 551 (1845). *Blyth, Cat. B. Mus. A. S. Beng. p.* 78.

Cuculus bubutus, *apud Raffles, Trans. Linn. Soc.* XIII. *p.* 286.

*a.* Drawing. Sumatra. From Raffles's Collection.

*b.* ♂. Malacca. Reserved from the Indian Collection, Exposition Universelle at Paris, 1855.

*C. eurycercus:* "being particularly remarkable for the great breadth of its tail-feathers, each of which measures $2\frac{3}{4}$ inches across. Colour as in *C. rufipennis*, but the back and wings are of a brighter and more chestnut-brown, and the tail is glossed with steel-blue instead of green. Length about 23 inches, of which the middle tail-feathers measure half, the outermost being $4\frac{3}{4}$ in. shorter; wing $8\frac{3}{4}$ in.; bill to gape nearly 2 in. (in a straight line), and $\frac{3}{4}$ in. in vertical height, being much larger than in *C. rufipennis;* tarse $2\frac{1}{4}$ in.; long hind-claw 1 inch."

1002. *CENTROPUS VIRIDIS, Scopoli Sp.*

Cuculus viridis, *Scopoli, Del. Flor. et Faun. Insub. p.* (1786). *Sonnerat's Voy. t.* 80.

Centropus viridis, *G. R. Gray, Gen. of B.* II. *p.* 455. *Blyth, Cat. B. Mus. A. S. Beng. p.* 78; *id. App. p.* 321. *Bonap., C. G. Av. p.* 107.

Polophilus viridis, *Shaw, Zool.* IX. *p.* 55. *Lath., Hist. of B.* III. *p.* 247.

Cuculus bengalensis, *Gmelin, S. N.* I. *p.* 412 (1788). (*Brown's Ill. Zool. t.* 13.) *Lath., Hist. of B.* III. *p.* 248.

Centropus bengalensis, *Jerdon, Madras Journ.* XIII. *pt.* I. *p.* 172; *pt.* II. *p.* 142.

Corydonyx maculatus, *Vieillot.*

♂ Centropus affinis, *Horsf., Trans. Linn. Soc.* XIII. *p.* 180 (1821). *Bonap., C. G. Av. p.* 108.

♀ Centropus lepidus, *Horsf., Trans. Linn. Soc.* XIII. *p.* 180 (1821). *McClell., P. Z. S.* (1839), *p.* 166. *Blyth, J. A. S. Beng.* XI. *p.* 1102; XII. *p.* 945; XIII. *p.* 391; XIV. *p.* 202. *Hodgs., Cat. B. of Nepal, p.* 118.

Cuculus Tolu, *apud Raffles, Trans. Linn. Soc.* XIII. *p.* 285.

Cuculus pumilis *et* C. melanops (?), *Lesson, Tr. d'Orn.*

Centropus dimidiatus, *Blyth, J. A. S. Beng.* XII. *p.* 945 (1843).

Centropus pygmæus, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 85.

Centropus rectunguis, *Strickland, P. Z. S.* (1846), *p.* 104; *Ann. N. H.* XIX. *p.* 134.

Polophilus Lathami, *Leach, Zool. Misc. t.* 56. *Shaw, Zool.* IX. *p.* 46, *t.* 9.

Centropus Lathami, *Blyth, Ann. N. H.* (1847), *pp.* 321, 385. *Tytler, Ann. N. H.* XIV. *n. s. p.* 173.

? Centropus medius, *Müller, Mus. Lugd. Bonap., C. G. Av. p.* 108.

Lesser Crow-Pheasant.

Bubut-allang-allang, Java, *Horsfield.*

*a.* ♂. Dacca. Presented by Captain R. C. Tytler.

*b.* ♂. N. India. From Griffith's Collection.

*c. d.* ♂ ♀. Nepal. (*C. pygmæus,* Hodgs.) Presented by B. H. Hodgson, Esq.

*e. f.* ♀ and drawing. Assam. From McClelland's Collection.

*g. h.* Adult ♂. Malacca. *i. j.* Young ♂. *k. l.* Young in first plumage. Pinang. Presented by Dr. Cantor, 1854.

*m.* ♂. Drawing. Sumatra. From Raffles's Collection.

*n. o. p. q.* ♂ ♀ (*C. affinis* et *lepidus,* Horsf.). Java. From Dr. Horsfield's Collection.

Capt. Tytler observes that "this is a common bird at Dacca, being found in bush-jungle. The calls of this bird vary, and are curious; one resembling the bark of the Bengal Fox, whilst the other might be imitated thus:—*clack, clack, clack, clack, clack, gouk, gouk, gouk, gouk, kurr, kurr, kurr, kurr, kurr, clack, clack,* &c. I obtained the nest and egg of this bird during the month of June: the eggs are pure white, and very round in formation. The nest, which was composed of straw and grass, resembled a large ball supported on sticks, with a hole in the side for the bird to enter: the nest was well concealed, and was with great difficulty discovered."

Genus Taccocua, *Lesson, Tr. d'Orn. p.* 143 (1831).

1003. *TACCOCUA SIRKEE, J. E. Gray Sp.*

Centropus Sirkee, *J. E. Gray, Ill. Ind. Orn.* I. *t.* 28 (1832).

Taccocua Sirkee, *Blyth, J. A. S. Beng.* XIV. *p.* 201; *Cat. B. Mus. As. Soc. Beng. p.* 76.

Zanclostomus Sirkee, *G. R. Gray, Gen. of B.* II. *p.* 461. *Bonap., C. G. Av. p.* 98.

Centropus cuculoides, *C. W. Smith, J. A. S. Beng.* X. *p.* 659.

Coccyzus chrysogaster *of Royle's Himalaya.*

Sirkeer Cuckoo, *p. Latham, Hist. of B.* III. *p.* 267.

*a.* Bengal. From Dr. Falconer's Collection.

*b.* Bengal. Presented by Rev. F. W. Hope.

1004. *TACCOCUA INFUSCATA, Blyth.*

Taccocua infuscata, *Blyth, J. A. S. Beng.* XIV. *p.* 200 (1845); *Cat. B. Mus. A. S. Beng. p.* 77.

Zanclostomus Sirkee, *apud Hodgson, Gray's Zool. Misc.* (1844), *p.* 85; *Cat. B. of Nepal, p.* 118.

*a. b.* Nepal. Presented by B. H. Hodgson, Esq.

*c.* Kumaon. Presented by Captain R. Strachey.

This species appears to be peculiar to the sub-Himalayan regions.

## Subfam. IV. PHŒNICOPHAINA.

Genus Phœnicophaus, *Vieillot, Analyse, &c. p.* 27 (1816).

Malcoha, *Cuvier, Règ. An.* (1817).

Melias, *Gloger* (1817).

1005. *PHŒNICOPHAUS CURVIROSTRIS, Shaw Sp.*

Cuculus curvirostris, *Shaw, Nat. Misc. t.* 905. *Lath., Hist. of B.* III. *p.* 253.

Phœnicophaus curvirostris, *G. R. Gray, Gen. of B.* II. *p.* 459. *Blyth, Cat. B. Mus. A. S. Beng. p.* 75.

Phœnicophaus tricolor, *Stephens, Shaw's Zool.* IX. *p.* 61, *t.* 14. *Eyton, P. Z. S.* (1839), *p.* 105.

Phœnicophaus viridis, *Vieillot* (*Le Vaill., Ois. d'Afr. t.* 225). *Blyth, J. A. S. Beng.* XI. *p.* 927; XIV. *p.* 199.

Phœnicophaus viridirufus (*Vieillot*), *Bonap., C. G. Av. p.* 98.

Cuculus melanognathus, *apud Raffles, Trans. Linn. Soc.* XIII. *p.* 287.

Tricoloured Malkoha, *Latham.*

Inggang Balukar, Sumatra, *Raffles.*

Kado Besar, Malacca, *Eyton.*

*a. b.* Malacca. From Griffith's Collection.

*c. d. e. f.* Malacca. Presented by Dr. Cantor, 1854.

*g.* Drawing. Sumatra. From Raffles's Collection.

Capt. Tickell states that he observed this bird in the Tenasserim provinces, "on low jungly hills, being very like *Zancl. tristis* in habits; scarce. A pair shot were both precisely similar, except in colour of iris, the male having that cobalt-blue, and the female orange. Food coleopterous and hemipterous insects, and very large caterpillars."—(J. A. S. Beng. (1855), p. 278.)

"Inhabits the hills of Sumatra and the neighbouring islands, but is not easily procured, as it commonly perches on the summits of the highest trees. It lives on insects."—(Raffles.)

It appears to be a common species about Malacca.

1006. *PHŒNICOPHAUS MELANOGNATHUS, Horsfield.*

Phœnicophaus melanognathus, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 178 (1820). *Blyth, J. A. S. Beng.* XIII. *p.* 391; XIV. *p.* 199. *Latham, Hist. of B.* III. *p.* 254.

Sintok Malkoha, *Latham.*

Kadallan or Sindok, Java, *Horsfield.*

A. *b.* (type). Java. From Dr. Horsfield's Collection.

Genus Zanclostomus, *Swainson, Classif. of B.* II. *p.* 323 (1837).

Melias, *p. Lesson.*

1007. *ZANCLOSTOMUS JAVANICUS, Horsfield Sp.*

Phœnicophaus javanicus, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 178 (1821); *Zool. Res. in Java, t.* 57.

*Vigors, Mem. Raffles, p.* 670. *Eyton, P. Z. S.* (1839), *p.* 105. *Lath., Hist. of B.* III. *p.* 255.

Zanclostomus javanicus, *Swainson, Classif. of B.* II. *p.* 323. *Blyth, J. A. S. Beng.* XI. *p.* 1097; XII. *p.* 944; XIV. *p.* 200; *Cat. B. Mus. A. S. Beng. p.* 76. *G. R. Gray, Gen. of B.* II. *p.* 461. *Bonap., C. G. Av. p.* 99.

Coccyzus rubrirostris, *Drapiez, Dict. Class. d'Hist. Nat.* IV. *p.* 558.

Coccyzus chrysogaster, *Temminck.*

Piaya erythrorhyncha, *Lesson.*

Chalybeate Cuckoo, *Latham, Gen. Hist.* III. *p.* 304.

Javan Malkoha, *Latham.*

Bay-breasted Sirkeer, *Blyth.*

Bubut Kembang, Java, *Horsfield.*

Kaka Apie, Malacca, *Eyton.*

A. *b. c.* Java (type). From Dr. Horsfield's Collection.
*d. e.* Malacca. From Griffith's Collection.
*f. g.* Malacca. Presented by Dr. Cantor, 1854.

"In Java this bird is found in the society of different Coucals (*Centropus*) at the confines of large forests, in plains covered with low shrubs, and solitary trees. It resembles the *Phrenotrix Temia* (*Crypsirina varians*) in its habits and manners. The shortness of its wings permits only of uninterrupted flights. It is not found in great abundance, being chiefly observed about noon, and is remarkable for the beauty of its form."—(Horsfield.)

"This species has also been received from Tenasserim and Borneo."—(Blyth.)

1008. *ZANCLOSTOMUS SUMATRANUS, Raffles Sp.*

Cuculus sumatranus, *Raffles, Trans. Linn. Soc.* XIII. *p.* 287 (1821). *Blyth, J. A. S. Beng.* XIII. *p.* 391.

Zanclostomus sumatranus, *Blyth, Cat. B. Mus. A. S. Beng. p.* 76. *Bonap., C. G. Av. p.* 99.

Phœnicophaus Crawfurdii, *J. E. Gray, Zool. Misc. p.* 3, *t.* 2 (1832). *Eyton, P. Z. S.* (1839), *p.* 105. *G. R. Gray, Gen. of B.* II. *p.* 461.

Phœnicophaus sumatranus, *Blyth, J. A. S. Beng.* XIV. *p.* 199.

Sepando, Sumatra, *Raffles.*

*a.* Drawing (type). Sumatra. From Raffles's Collection.

*b. c. d.* Malacca. Presented by Dr. Cantor, 1854.

1009. *ZANCLOSTOMUS DIARDI, Lesson Sp.*

Melias Diardi, *Lesson, Tr. d'Orn.* (1831), *p.* 132.

Zanclostomus Diardi, *G. R. Gray, Gen. of B.* II. *p.* 461. *Blyth, Cat. B. Mus. A. S. Beng. p.* 76.

Phœnicophaus Diardi, *Blyth, J. A. S. Beng.* XIV. *p.* 199.

Phœnicophaus tristis, *apud Blyth, J. A. S. Beng.* XI. *p.* 928.

Cadow Kachie, Malacca.

*a.* Malacca. From the Asiatic Society of Bengal.

*b. c. d. e.* Malacca. Presented by Dr. Cantor, 1854.

*f. g.* Malacca. Reserved from the Indian Collection, Exposition Universelle at Paris, 1855.

1010. *ZANCLOSTOMUS VIRIDIROSTRIS, Jerdon.*

Zanclostomus viridirostris, *Jerdon, Madras Journ.* XI. *p.* 223 (1840); *Ill. Ind. Orn. t.* 3. *Blyth, J. A. S. Beng.* XIV. *p.* 200; XV. *p.* 284; *Cat. B. Mus. A. S. Beng. p.* 76. *G. R. Gray, Gen. of B.* II. *p.* 461. *Bonap., C. G. Av. p.* 99. *Layard, Ann. N. H.* XIII. *n. s. p.* 453.

Green-billed Cuckoo, *Jerdon.*

Kuppra Popya, Hind., *Jerdon.*

Wamaneh Kaki, Telugu, *Jerdon.*

Handi Koota, Ceylon, *Daniell.*

Mal-coha, Ceylon, *Layard.*

*a.* Madras. From Wight's Collection.

*b.* S. India.

"The Green-billed Cuckoo is dispersed over a great portion of the peninsula of India, though by no means common except in some few localities. In the bare Carnatic and the Deccan it is chiefly

to be met with in those districts where the land is much inclosed, as in part of the zillah of Coimbatore, where large tracts of country are inclosed by thick and in many cases lofty hedges of various species of Euphorbia, which afford shelter and abundance of food to this bird. It is also to be found in patches of low and thorny jungle, more especially if, as is the case with many of the low range of hills in the Carnatic, bushes of Euphorbia form a prominent portion of the jungle. Throughout the west coast, where jungle and forests abound, it is much more common, especially in those parts where bamboos occur, and where numberless creepers entwine themselves, and hang in luxuriant festoons from almost every tree. Such is the peculiarly appropriate haunt of this Cuckoo, which diligently searches the foliage for various species of mantis, grasshopper, and locust, whose green colours and odd forms, though assimilating so strongly to the plants on which they rest, are of but little avail against its keen and searching eye. It is usually found single, and when observed, but seldom takes to flight, making its way most adroitly through the most tangled brakes or hedges, and concealing itself on the opposite side."—(Jerdon.)

"Very common in most parts of Ceylon, but abounding in the northern province. It is usually seen in pairs, flitting from tree to tree. It is wary and difficult to shoot, as it creeps through the thickest bushes and trees, and invariably flies out on the other side. It feeds in common with *Eudynamys orientalis*, on the fruit of the banian-tree."—(Layard.)

1011. *ZANCLOSTOMUS TRISTIS*, *Lesson Sp.*

Melias tristis, *Lesson, Tr. d'Orn.* (1831), *p.* 132.

Zanclostomus tristis, *Blyth, J. A. S. Beng.* XIV. *p.* 200; *Cat. B. Mus. A. S. Beng. p.* 76. *G. R. Gray, Gen. of B.* II. *p.* 461. *Bonap., C. G. Av. p.* 99.

Phœnicophaus tristis, *McClelland, P. Z. S.* (1839), *p.* 166. *Hodgs., Cat. B. of Nep. p.* 118.

Phœnicophaus longicaudatus, *Blyth, J. A. S. Beng.* X. *p.* 923 (1841); XI. *p.* 1095; XII. *pp.* 177, 246.

Phœnicophaus montanus, *Hodgs., Gray's Zool. Misc.* (1844), *p.* 85.

*a.* and drawings. Assam. From McClelland's Collection.

*b. c.* Nepal. Presented by B. H. Hodgson, Esq.

*d. e.* Kumaon. Presented by Capt. R. Strachey.

This bird appears to be not rare in Nepal, and, from the name applied to it by Mr. Hodgson, may be presumed to affect upland forests. It is common in the Tenasserim provinces, according to the Rev. J. Barbe, and was always observed in pairs.

Genus Rhinortha, *Vigors, App. Mem. Raffles, p.* 671 (1830).
Bubutus, *Lesson, Tr. d'Orn. p.* (1831).
Anadænus, *Swainson, Classif. of B.* II. *p.* 324 (1837).
Idiococcyx, *Boie* (1838).

1012. *RHINORTHA CHLOROPHÆA, Raffles Sp.*

♀ Cuculus chlorophæus, *Raffles, Trans. Linn. Soc.* XIII. *p.* 288 (1821).
Rhinortha chlorophæa, *Vigors, App. Mem. Raffles, p.* 671. *Blyth, J. A. S. Beng.* XI. *p.* 924; XII. *p.* 246; XIV. *p.* 199; XVI. *p.* 468; *Cat. B. Mus. A. S. Beng. p.* 76. *G. R. Gray, Gen. of B.* II. *p.* 461. *Bonap., C. G. Av. p.* 97.
Cuculus sumatranus, *Cuvier.*
♂ Rhinortha caniceps, *Vigors, Mem. Raffles, p.* 671.
Bubutus Duvaucelei, *Lesson, Tr. d'Orn. p.* 143.
♀ Bubutus Isidorei, *Lesson, Zool. Voy. Belanger, t.* 1.
♀ Coccyzus badius, *J. E. Gray, Zool. Misc.* (1832), *p.* 3, *t.* 1.
♂ ♀ Anadænus rufus *et* A. rufescens, *Swainson.*
♀ Phœnicophæus viridirostris, *Eyton, P. Z. S.* (1839), *p.* 105.
Bubut, Sumatra, *Raffles.*
Slaya, See-saya, Malacca.

*a.* ♂, and drawing ♀ (type). Sumatra. From Raffles's Collection.

*b. c. d. e. f.* ♂ ♀. Pinang and Malacca. Presented by Dr. Cantor, 1854.

*g. h.* ♂ ♀. Malacca. Reserved from the Indian Collection, Exposition Universelle at Paris, 1855.

## Subfam. V. CUCULINA.

Genus Coccystes, *Gloger* (1834).

Edolius, *Lesson* (1831), *nec. Cuvier* (1817).

Oxylophus, *Swainson, Classif. of B.* II. *p.* 322 (1837).

1013. *COCCYSTES COROMANDUS, Linn. Sp.*

Cuculus coromandus, *Linn. S. N.* I. *p.* 171. (*Pl. Enl.* 274, *f.* 2.) *Lath., Hist. of B.* III. *p.* 292.

Oxylophus coromandus, *Jerdon, Madras Journ.* XI. *p.* 222. *G. R. Gray, Gen. of B.* II. *p.* 464. *Hodgs., Cat. B. of Nepal, p.* 119. *Blyth, J. A. S. Beng.* XI. *p.* 920; *Cat. B. Mus. A. S. Beng. p.* 74. *Bonap., C. G. Av. p.* 102. *Layard, Ann. N. H.* XIII. *n. s. p.* 451. *Motley et Dillwyn, Nat. Hist. of Labuan, p.* 55.

Oxylophus coromandus, *v.* rubrarmus, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 85.

Cuculus collaris, *Vieillot.* (*Le Vaill., Ois. d'Afr. t.* 213.)

Oxylophus (*Sp.*), *Blyth, J. A. S. Beng.* X. *p.* 923.

Red-winged Crested Cuckoo, *Blyth.*

Collared Cuckoo, *Latham.*

Ceylon Cuckoo, *Lath., Hist. of B.* III. *p.* 291.

*a. b. c.* Nepal. Presented by B. H. Hodgson, Esq.

*d. e. f.* Pinang. Presented by Dr. Cantor, 1854.

"Certainly a rare bird in the vicinity of Calcutta; and it does not appear to be commoner in peninsular India; but on the eastern side of the Bay of Bengal it is more numerous, being common in Tenasserim, as likewise in Nepal. Irides dark hazel; orbits dusky; bill black; the inside of the mouth dull coral-red; feet lead-colour."—(Blyth.)

"I have seen specimens of this bird from the forests of Malabar." (Jerdon.)

"This is one of the rarest birds in Ceylon, only a few specimens falling under my notice during my residence in the island. One I killed in Jaffna, another near Colombo, and the last near Ratnapoora." —(E. L. Layard.)

1014. *COCCYSTES MELANOLEUCOS, Gmelin Sp.*

Cuculus melanoleucos, *Gmelin, S. N.* I. *p.* 416. *Lath., Hist. of B.* III. *p.* 288. (*Buch.*) *Hamilton, MS.* I. *p.* 31.

Oxylophus melanoleucos, *Blyth, Cat. B. Mus. A. S. Beng. p.* 74. *Tytler, Ann. N. H.* XIII. *n. s. p.* 368. *Layard, Ann. N. H.* XIII. *n. s. p.* 451.

Cuculus edolius, *Cuvier.*

Oxylophus edolius, *Swainson, Classif. of B.* II. *p.* 322. *Jerdon, Madras Journ.* XI. *p.* 222. *Blyth, J. A. S. Beng.* XI. *p.* 921; XII. *p.* 245.

Oxylophus serratoides, *Hodgson, Gray's Zool.* (1844), *p.* 85.

Leptosomus afer, *apud Franklin, P. Z. S.* (1831), *p.* 121. *Sykes, P. Z. S.* (1832), *p.* 97.

Oxylophus ater, *apud Hodgson's Cat. B. of Nepal, p.* 118.

Oxylophus serratus, *apud Gray, Gen. of B.* II. *p.* 464. *Bonap., C. G. Av. p.* 102.

Pied Crested Cuckoo, *Blyth.*

Coromandel Crested Cuckoo, *Latham.*

Black and White Crested Cuckoo, *Jerdon.*

Popiya, Hind., (*Buch.*) *Hamilton. Jerdon.*

Kolu Bulbul, Bengal, *Blyth.*

Golli Kokila (*i. e.* 'Milkman Cuckoo'), Telugu, *Jerdon.*

A. Dukhun. Presented by Colonel Sykes.

*b.* Central India (Saugor). From W. T. Hooper, Esq.

*c. d.* ♂ ♀. Bengal. From the Asiatic Society of Bengal.

*e.* ♂. Scinde. Presented by Dr. H. Gould, 1855.

*f. g. h.* ♂ ♀. Kumaon. Presented by Capt. R. Strachey.

*i.* Nepal. Presented by B. H. Hodgson, Esq.

*k.* Drawing. From F. (B.) Hamilton's Collection.

"This is distributed over all India, but cannot be said to be a common bird anywhere. It is most numerous in the more wooded districts. I have observed it in the Carnatic, Malabar coast, and even on the bare Deccan, [where it is, remarks Col. Sykes, 'rare,'] in low jungle, or among gardens. It hunts single or in pairs, and feeds chiefly on various soft insects, &c. On the Neilgherries I have

seen it occasionally about the hedges of the hills, frequenting the thick bushy ground there. I obtained one young bird in the nest of *Malacocercus griseus*, in a thick hedge at Coimbatoor. It has a loud peculiar call, which it only appears to utter when on the wing."—(Jerdon.)

"A common species in Bengal. From what I have observed of this bird, it is not one which affects much concealment, but frequently sits exposed on a dead or bare branch. I have never heard from it any note resembling the sound *Popiya*, but only a continuously reiterated simple cry, by no means loud."—(Blyth.)

Mr. W. Theobald, jun., obtained the egg of this species "from the nest of *Malacocercus caudatus* in August, wherein were four ordinary eggs, which it closely resembles in colour, though its form indicates its parasitical character. Egg deep greenish-blue; one only; blunt oval form; size $\frac{0.91}{0.81}$."—(J. A. S. Beng. XXIII. p. 599.)

In Ceylon this is "abundant in open plains dotted with low bushes, from Hambantotte to Jaffna. It sits upon the tops of the Euphorbia trees, and utters a chattering cry. Shooting one morning in the vicinity of Point Pedro, I observed a pair of Mud birds (*Malacocercus bengalensis*), which hovered about an isolated bush with all the solicitude of parent birds attending upon a nest of young ones; when I drew near, they flew before me, feigning lameness, and endeavoured to draw off my attention from some object in the bush; this I soon found was a young *Oxylophus melanoleucos*, which I captured, the Mud birds meanwhile flying about my head, uttering the most unmistakable cries of distress. I found no other young bird or nest in the bush, which was a small one, and am convinced that these were foster-parents to the young cuckoo."—(E. L. Layard.)

Genus Surniculus, *Lesson, Tr. d'Orn. p.* 151 (1831).

Pseudornis, *Hodgson, J. A. S. Beng.* VIII. *p.* 136 (1839).

1015. *SURNICULUS LUGUBRIS, Horsfield Sp.*

Cuculus lugubris, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 179 (1821). (*Zool. Res. in Java, t.* 58.) *Lath., Hist. of B.* III. *p.* 286. *G. R. Gray, Gen. of B.* II. *p.* 463.

Surniculus lugubris, *Lesson, Tr. d'Orn. p.* 151. *Blyth, J. A. S. Beng.* XII. *p.* 244; *Cat. B. Mus. As. Soc. Beng. p.* 72. *Bonap., C. G. Av. p.* 105.

Pseudornis lugubris, *Hodgs., J. A. S. Beng.* VIII. *p.* 137. *Blyth, J. A. S. Beng.* XI. *pp.* 790, 916.

Cuculus albopunctatus, *Drapiez, Dict. Class. d'Hist. Nat. art. Coucou.*

Mournful Cuckoo, *Latham.*

Square-tailed Drongo Cuckoo, *Blyth.*

Awon Awon, Java, *Horsfield.*

A. Java (type). From Dr. Horsfield's Collection.

*b. c. d. e. f. g.* ♂ ♀. Malacca. Presented by Dr. Cantor.

"In Java this Cuckoo is found in districts of secondary elevation, which are diversified with extended ranges of hills, and covered with luxuriant forests. The southern and western parts of the island are generally of this description. In the extensive central plains intervening between abrupt, conical, and elevated mountains, and which are generally in a high state of culture, and covered with flourishing towns and villages, I have rarely observed it. This bird retires into the deepest coverts, and, having a dark plumage, it is with difficulty surprised. Its peculiarities, both as to voice and general habits, have not, so far as is known to me, been observed. Its habits are very different from those of *Eudynamys orientalis* and *Cuculus flavus*, which are both very abundant in Java."—(Horsfield.)

1016. *SURNICULUS DICRUROÏDES, Hodgson Sp.*

Pseudornis dicruroïdes, *Hodgson, J. A. S. Beng.* VIII. *p.* 136, *tab.* (1839); *India Review*, IV. *p.* 114; *Cat. B. of Nepal, p.* 119. *Blyth, J. A. S. Beng.* XI. *p.* 915.

Surniculus dicruroïdes, *Blyth, J. A. S. Beng.* XII. *p.* 244; *Cat. B. Mus. As. Soc. Beng. p.* 72. *Bonap., C. G. Av. p.* 105.

Cuculus dicruroïdes, *Jerdon, Madras Journ.* XI. *p.* 221. *G. R. Gray, Gen. of B.* II. *p.* 463. *Layard, Ann. Nat. Hist.* XIII. *n. s. p.* 453.

Forked-tailed Drongo Cuckoo, *Blyth.*

Drongo, or Black fork-tailed Cuckoo, *Jerdon.*

*a. b. c.* Nepal (type). Presented by B. H. Hodgson, Esq.

Inhabits India, the Tenasserim provinces, and Ceylon.

According to Mr. Hodgson, "this species is confined exclusively to the mountain forests. Sexes alike. Iris hoary-brown; palate red; legs and feet blue."

Mr. Jerdon observes, "I obtained a single specimen of this most extraordinary species of Cuckoo in the Wynaad, near Manantoddy, and never again observed it. Irides reddish-brown; legs reddish. Does this Drongo Cuckoo select the nest of the Dicrurus to deposit its eggs in?"

"In Ceylon, the principal habitat of this Cuckoo seems to be the neighbourhood of Kandy, whence Mr. Thwaites has sent numerous specimens. I procured it about Cotta, in the low country." — (Layard.)

Genus Polyphasia, *Blyth, J. A. S. Beng.* XII. *p.* 244 (1843).
? Cacomantis, *Müller* (1842).

1017. *POLYPHASIA MERULINA*, *Scopoli Sp.*

Cuculus merulinus, *Scopoli, Floræ et Faunæ Insubriæ, p.* (1786). (*Sonnerat's Voy. t.* 81.) *Strickland, Journ. As. Soc. Beng.* XIII. *p.* 391. *G. R. Gray, Gen. of B.* II. *p.* 463. *Blyth, Cat. B. Mus. As. Soc. Beng. p.* 72.

Cuculus flavus, *Gmelin, S. N.* I. *p.* 421 (1788). (*Pl. Enl.* 814.) *Lath., Hist. of B.* III. *p.* 303. *Horsf., Trans. Linn. Soc.* XIII. *p.* 179. *Raffles, id. p.* 285. *Blyth, J. A. S. Beng.* XI. *p.* 912. *Bonap., C. G. Av. p.* 103.

Polyphasia flava, *Blyth, J. A. S. Beng.* XII. *pp.* 241–44.

Cuculus pyrogaster, *Drapiez, Dict. Class. d'Hist. Nat.*

? Cuculus variegatus *et* flaviventris, *Scopoli* (*Sonn., Voy. t.* 78, 79).

Yellow-bellied Cuckoo, *Latham.*

Gedasse, Java, *Horsfield.*

A. B. *c. d.* (adult and young). Java. From Dr. Horsfield's Collection.

*e.* Drawing. Sumatra. From Raffles's Collection.

*f. g. h.* Pinang. Presented by Dr. Cantor, 1854.

"Iris pale lake-colour; legs pale orange."— (Dr. Cantor's MS. Notes.)

Dr. Horsfield remarks, "This Cuckoo descends into the plains and cultivated tracts, where it is heard in the morning from almost every tall tree. It has three distinct notes, which it repeats in great regularity with a loud but not unpleasant voice, although by many natives it is considered as ominous of evil."—(Zool. Researches in Java.)

1018. *POLYPHASIA TENUIROSTRIS, J. E. Gray Sp.*

Cuculus tenuirostris, *J. E. Gray, Hardwicke's Ill. Zool.* II. *t.* 34, *f.* 1 (1833). *Strickland, Journ. As. Soc. Beng.* XIII. *p.* 391. *Blyth, J. A. S. Beng.* XVIII. *p.* 805; *Cat. B. Mus. A. S. Beng. p.* 72. *Layard, Ann. N. H.* XIII. *n. s. p.* 453.

Cuculus niger, *v.* pyrommatus, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 85.

Cuculus niger, *apud Latham, Gen. Hist. of B.* III. *p.* 285. *Blyth, J. A. S. Beng.* XI. *p.* 908; XII. *p.* 242. *G. R. Gray, Gen. of B.* II. *p.* 463. *Hodgs., Cat. B. of Nepal, p.* 120.

Plaintive Cuckoo, *Jerdon.*

Chota-bhrow, Bengal, (*Buch.*) *Hamilton, MS.* I. *p.* 35.

Pousya, Mahratta, *Jerdon.*

*a. b. c. d. e.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

*f.* ♀. Bootan. From Pemberton's Collection.

*g.* Drawing. From F. (Buch.) Hamilton's Collection.

*h.* ♀. Pinang. Presented by Dr. Cantor, 1854.

"From what I can learn," says Mr. Blyth, "this Cuckoo appears to be not a rare bird in Bengal. I have been credibly informed by a man that he saw a specimen of this bird (which he shot) follow a butterfly on the wing, which it endeavoured to capture with its feet, in the manner of a Hawk; a trial that has already been recorded of the European Cuckoo."

"The Plaintive Cuckoo, as it may appropriately be named, is an inhabitant of the western coast of the peninsula, and is found alike in thick jungle and in the more open spaces, and even in gardens and avenues. It is found at all levels, from that of the sea to the top of the Neilgherries, about Coonoor and Kotagherry, where it is found in thick bushy ground. It is found single or in pairs. It has a most sweet and plaintive note, which is often heard, and which

sounds something like the last syllable, being *whĕ-whēw*, *whe-whē-ĕ-w*, much lengthened out, and very plaintive. I found its food to consist chiefly of caterpillars. Irides ruby-red."—(Jerdon.)

"In Ceylon this is very abundant throughout the island; it is migratory, appearing about Jaffna in the month of February."—(Layard.)

1019. *POLYPHASIA SONNERATI*, *Latham Sp.*

Cuculus Sonneratii, *Latham, Ind. Orn.* I. *p.* 215 (1790). *Blyth, J. A. S. Beng.* XI. *p.* 906; XIV. *p.* 204; *Cat. B. Mus. A. S. Beng. p.* 72. *Strickland, J. A. S. Beng.* XIII. *p.* 390; *P. Z. S.* (1846), *p.* 104. *G. R. Gray, Gen. of B.* II. *p.* 463. *Layard, Ann. N. H.* XIII. *n. s. p.* 452.

Cuculus Pravata, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 179 (1821). *Latham, Hist. of B.* III. *p.* 286.

Cuculus rufovittatus, *Drapiez, Dict. Class. d'Hist. Nat.*

Cuculus venustus, *Jerdon, Madras Journ.* XIII. *pt.* II. *p.* 140 (1844).

Cuculus himalayanus, *apud Jerdon, Madras Journ.* XI. *p.* 220.

Sonnerat's Cuckoo, *Latham.*

Small Bay Cuckoo, *Jerdon.*

Tracha, Java, *Horsfield.*

A. Java. (*C. Pravata*, Horsf.) From Dr. Horsfield's Collection.

*b. c. d.* Malacca. Presented by Dr. Cantor, 1854.

"Found, though rarely, all over the peninsula of India, in thick forest jungle. I have observed it once or twice only in Malabar, and in the Coonoor Ghaut, but have seen specimens from Travancore, where it appears tolerably abundant, and also from the eastern range of Ghauts, about the latitude of Madras. The stomach of the only specimen I shot contained caterpillars."—(Jerdon.)

"Dr. Kelaart procured several specimens of this in Ceylon, and it is one of our rarest birds."—(Layard.)

Genus Hierococcyx, *Müller, Verh. Nat. Gesch. p.* 233 (1842).

1020. *HIEROCOCCYX SPARVEROÏDES*, *Vigors Sp.*

Cuculus sparveroïdes, *Vigors, P. Z. S.* (1831), *p.* 173. *Gould, Cent. of B. t.* 53. *Blyth, J. A. S. Beng.* XI.

*p.* 898; XII. *p.* 240; *Cat. B. Mus. A. S. Beng. p.* 70. *G. R. Gray, Gen. of B.* II. *p.* 463. *Hodgson, Cat. B. of Nepal, p.* 120.

Hierococcyx sparveroïdes, *Bonap., C. G. Av. p.* 104.

Ferruginous-necked Cuckoo, *Latham, Hist. of B.* III. *p.* 269.

Accipitrine Cuckoo, *Blyth.*

*a.* Adult. Darjeeling. From Pearson's Collection.

*b. c. d.* Adult and young. Nepal. Presented by B. H. Hodgson, Esq.

This Cuckoo (and also the next) are included in the catalogue of Dr. Royle's birds, procured at Saharunpore and in the Himalaya, as migratory, appearing in March.

In Southern India, says Mr. Jerdon, "this species is only found in the dense woods of the summit of the Neilgherries. It is seldom seen, except when the woods are beaten for Woodcocks, and quits the shelter of the wood with reluctance. I never heard its note. Flight rapid; stomach filled with caterpillars."—(J. A. S. Beng. XII. p. 240.)

1021. *HIEROCOCCYX VARIUS, Vahl Sp.*

Cuculus varius, *Vahl, Shrivter af Naturl. Selsk.* IV. *pt.* I. *p.* 61. *Strickland, Ann. N. H.* XVIII. *p.* 399.

Hierococcyx varius, *Müller, Verh. Nat. Gesch. p.* 233. *Bonap., C. G. Av. p.* 104?

Cuculus fugax, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 178 (1821). *Latham, Hist. of B.* III. *p.* . *Sykes, P. Z. S.* (1832), *p.* 98. *Jerdon, Madras Journ.* XI. *p.* 219. *Blyth, J. A. S. Beng.* XI. *p.* 899; XIV. *p.* 204; XV. *p.* 18; *Ann. N. H.* XVIII. *p.* 385; *Cat. B. Mus. A. S. Beng. p.* 70. *G. R. Gray, Gen. of B.* II. *p.* 463. *Hodgson, Cat. B. of Nepal, p.* 120.

Cuculus Lathami, *J. E. Gray, Ill. Zool. t.* 34, *f.* 2 (1832).

Cuculus tenuirostris, *Lesson, Tr. d'Orn. p.* (1831).

Cuculus ejulans, *Sundevall, Physigr. Sällsk. Tidsk.* (1837); *Ann. N. H.* XVIII. *p.* 398.

Cuculus nisicolor, *Hodgson, J. A. S. Beng.* XII. *p.* 943 (1843). *Gray's Zool. Misc.* (1844), *p.* 85.

Bhrou Cuckoo, *Lath., Hist. of B.* III. *p.* 264–5.

Bychan Cuckoo, *Lath., Hist. of B.* III. *p.* 264–6.

Sokagu Cuckoo, *Latham.*

Kupuk, or Upuk, Hind., *Jerdon.*

Chok-gallo, Bengal, *Blyth.*

Popiya, Bengal, *Jerdon.*

Kutti-putta ('Sword-bird'), Telugu, *Jerdon.*

Zuk-kat ('Custom-house bird'), Dukhun, *Jerdon.*

*a.* ♂. Nepal (*C. nisicolor*, Hodgs.). Presented by B. H. Hodgson, Esq.

*b.* Young. Bengal. From the Asiatic Society of Bengal.

*c.* Young. Bengal. Presented by Capt. R. C. Tytler.

D. ♂. Java (type of *C. fugax*, Horsf.). From Dr. Horsfield's Collection.

*e.* ♂. Malacca. Presented by Dr. Cantor, 1854.

Inhabits India generally, Ceylon, and the Malay countries.

"Common in Bengal, and apparently throughout India. It is a noisy bird, and has two or three different notes, the most remarkable of which is the shrill whistling *crescendo* note adverted to by Mr. Jerdon, and which Mr. Elliot endeavours to express by the sound '*whe-wheewa, whe-whee-wa, whe-whe-e-wa*, uttered eight or ten times, and sometimes oftener; at first lower, and gradually rising till the later repetitions become extremely loud and shrill;' indeed, so much so, that it is impossible for one's attention not to be roused by it; and the bird often delivers this cry perched conspicuously upon a bare branch near the top of a high tree, being answered to at times by others; and not unfrequently two or three of them may be heard engaged in noisy contest, emitting then a continuously reiterated squeaking cry, which also increases gradually in loudness."—(Blyth.)

"This Cuckoo is found all over the peninsula in the more wooded districts, not only in thick jungles, but also in groves and gardens. It is very numerous in the thickly-wooded western coast, and its loud, shrill *crescendo* notes, very similar to those of the Coel, are heard in every avenue. It flies very like the Shikra (*Accipiter Dussumieri*); and it is frequently pursued by small birds, probably under that impression. It lives chiefly on fruit, especially the fig of the banian-

tree; occasionally, however, on caterpillars and other soft insects. Irides bright-yellow; bill brown, yellowish at the base; gape, eyelids, and feet deep bright yellow."—(Jerdon.)

Genus Cuculus, *Linn. S. N.* (1735).

1022. *CUCULUS CANORUS*, *Linnæus.*

Cuculus canorus, *Linn. S. N.* I. *p.* 168. (*Pl. Enl.* 811. *Le Vaill., Ois. d'Afr. t.* 202, 203.) *Lath., Hist. of B.* III. *p.* 257. *Sykes, P. Z. S.* (1832), *p.* 98. *Gould, B. of Eur. t.* 240. *Blyth, J. A. S. Beng.* XI. *p.* 901; *Cat. B. Mus. A. S. Beng. p.* 71. *Hodgson, Cat. B. of Nep. p.* 119. *G. R. Gray, Gen. of B.* II. *p.* 463. *Bonap., C. G. Av. p.* 102. *Layard, Ann. N. H. n. s.* XIII. *p.* 452.

Cuculus borealis, *Pallas.*

Cuculus hepaticus, *Sparrman, Mus. Carls. t.* 55 (1788).

The Common Cuckoo.

P'hu-p'hu, Deyra Doon, *Blyth.*

*a. b.* ♂. Mesopotamia. Presented by Commander Jones.

*c. d. e.* ♂ ♀. N. W. India. From Griffith's Collection.

*f. g.* ♂, ♀, and young. Kumaon. Presented by Captain Strachey.

*h. i.* ♂ and young. Nepal. Presented by B. H. Hodgson, Esq.

*j. k.* ♂ ♀. Bootan. From Pemberton's Collection.

"In India this Cuckoo is tolerably common on the Himalayas, and Lieut. Tickell remarks that it is not rare in the jungles of Borabhúm and Dholbhúm; but Mr. Jerdon states that 'it is seldom met with southward of north lat. 20°. Its well-known note was often heard in Goomsoor.' Colonel Sykes mentions it as found, though rarely, in the Bombay Deccan; and Major Franklin designates it 'the common Cuckoo of India:' but I have never yet [1842] heard its note in the vicinity of Calcutta, though I possessed a living specimen for some months which was taken in the neighbourhood."—(Blyth.)

In 1846, Mr. Blyth further remarks: "I kept for about a year a pair of *C. canorus* (*indicus*), and for a long while in the same cage: upon separating them, the male soon began to utter his cry, *cuckoo*, generally of a morning and evening, ten or twenty times successively.

The note was certainly harsher and less musical than that of the English bird, whether heard near or at a distance."

Mr. Layard shot a single specimen of this Cuckoo near Colombo, in Ceylon.

1023. *CUCULUS HORSFIELDI, Moore.*

Cuculus canorus, *apud Horsfield, Trans. Linn. Soc.* XIII. *p.* 179.

? Cuculus tenuirostris, *Temminck; Bonap., C. G. Av. p.* 103.

? Cuculus optatus, *Gould, B. of Austr.* IV. *t.* 84.

Horsfield's Cuckoo.

A. ♂ adult. Java. From Dr. Horsfield's Collection.

Length about 12 in.; of wing 8 in.; tail 7 in.; bill to gape $1\frac{2}{10}$ in.; and tarsus $\frac{8}{10}$ in.

The Java Cuckoo appears to be a distinct species from *C. canorus*, but may ultimately be proved identical with the Australian bird *C. optatus*, Gould, and which inhabits the northern part of that country.

1024. *CUCULUS STRIATUS, Drapiez.*

Cuculus striatus, *Drapiez, Dict. Class. d'Hist. Nat. Hodgson, Cat. B. of Nepal, p.* 120. *Blyth, Cat. B. Mus. A. S. Beng. p.* 70.

Cuculus micropterus, *Gould, P. Z. S.* (1837), *p.* 137. *Blyth, J. A. S. Beng.* XI. *p.* 902; XIV. *p.* 204; XV. *p.* 18.

Great-billed Cuckoo, *Blyth.*

Bou-kotako, Bengal, *Blyth.*

Kyphul-pucka, Hillmen, Masuri, *Hutton.*

A. ♂. Himalaya. From Reeves's Collection.

*b. c. d.* Nepal (No. 507 Hodgs. List). Presented by B. H. Hodgson, Esq.

? *f. g. h.* Young. Malacca. Presented by Dr. Cantor.

"The bill in this is larger than in *C. canorus*, the under parts more distantly banded, and the upper parts of a bronzed ash-brown, and not *pure* dark ashy; the irides pale dusky, and the orbits and feet light wax-yellow.

"Inhabits India generally, and is common in the Himalaya.

Lieut. Tickell informs us that it is of frequent occurrence in the neighbourhood of Chyebassa, in Central India. Mr. Jerdon procured it in the Carnatic, remarking that 'it was certainly rare in the south of India.' About Calcutta it is not rare. I have often heard the musical note of one in possession of a native, and from which is derived its Bengalee appellation. Lieut. Tickell termed this a double repetition of the sound *cuckoo*, and the tone of utterance is much the same as in *C. canorus;* or it may be styled a melodious, deep-toned whistle, agreeable to hear, despite its monotonous reiteration. Among the natives this bird is an especial favourite."—(Blyth.)

1025. *CUCULUS HIMALAYANUS, Vigors.*

Cuculus himalayanus, *Vigors, P. Z. S.* (1831), *p.* 137 (*nec. Gould, Century*). *Blyth, Cat. B. Mus. A. S. Beng. p.* 71.

Cuculus saturatus, *Hodgson, J. A. S. Beng.* XII. *p.* 942 (1843). *Gray's Zool. Misc.* (1844), *p.* 85. *Blyth, J. A. S. Beng.* XV. *p.* 18.

*a.* ♂. (*C. saturatus*, Hodgs.) *b. c.* Nepal. Presented by B. H. Hodgson, Esq.

"Upper parts uniform pure dark-ashy; the under parts appear to be more closely barred than in *C. striatus*, and is altogether a more complete miniature of *C. canorus*, having the dimensions of *C. striatus*."

Inhabits the Himalaya generally.

1026. *CUCULUS POLIOCEPHALUS, Latham.*

Cuculus poliocephalus, *Latham, Hist. of B.* III. *p.* 181. *Blyth, J. A. S. Beng.* XI. *p.* 904; *Cat. B. Mus. A. S. Beng. p.* 71. *Hodgson, Cat. B. of Nepal, p.* 119.

Cuculus himalayanus, *v.* Bharovus, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 85.

Cuculus himalayanus, *apud Gould, Cent. of B. t.* 54.

Small Himalayan Cuckoo, *Blyth.*

Ashy-headed Cuckoo, *Gray.*

Chota-Bhrou, Nepal, *Hodgson.*

*a. b. c. d. e.* ♂, ♀, and young. Nepal. (No. 501, Hodgs. List.) Presented by B. H. Hodgson, Esq.

Length 10 in.; of wing $5\frac{7}{8}$ in.; tail $5\frac{1}{8}$ in.; bill from forehead $\frac{11}{16}$ in.; and from gape 1 in.; tarse posteriorly $\frac{5}{8}$ in.

Inhabits the Himalaya, and Southern India rarely.

Genus Chrysococcyx, *Boie, Isis* (1826).

Chalcites, *Lesson, Tr. d'Orn.* (1831).

Lampromorpha, *Vigors, P. Z. S.* (1831), *p.* 98.

1027. *CHRYSOCOCCYX SMARAGDINEUS, Swains. Sp.*

Cuculus smaragdineus, *Swainson, B. of W. Afr.* II. *p.* 191. *G. R. Gray, Gen. of B.* II. *p.* 463.

Chrysococcyx smaragdineus, *Bonap., C. G. Av. p.* 105.

A. B. ♂. Cape of Good Hope. From Dr. Horsfield.

1028. *CHRYSOCOCCYX KLASI, Cuvier Sp.*

Cuculus Klasii, *Cuvier, Règ. Anim. p.* 425 (1817). (*Le Vaillant, Ois. d'Afr. t.* 212.)

Chrysococcyx Klasi, *Bonap., C. G. Av. p.* 105. *Blyth, Cat. B. Mus. A. S. Beng. p.* 73.

Chalcites Klasi, *Lesson, Tr. d'Orn. p. . Swainson, B. of West Afr. t.* 21.

Klas's Cuckoo.

A. B. ♂ ♀. Cape of Good Hope. From Dr. Horsfield.

1029. *CHRYSOCOCCYX HODGSONI, Moore.*

Trogon maculatus, *Gmelin,* S. N.* I. *p.* 404. (*Brown's Ill. Zool. t.* 13, *fig. sup.*)

Chrysococcyx smaragdinus,† *Blyth, J. A. S. Beng.* XV. *p.* 53 (1846).

Chrysococcyx lucidus, *apud Blyth, J. A. S. Beng.* XI. *p.* 917; XII. *p.* 944.

Chalcites xanthorhynchus, *apud Hodgson, Gray's Zool. Misc.* (1844), *p.* 85; *Cat. B. of Nepal, p.* 120.

Cuculus malayanus, *apud G. R. Gray, Gen. of B.* II. *t.* 117.

Banded Emerald Cuckoo, *Blyth.*

*a.* ♂ adult. Nepal. Presented by B. H. Hodgson, Esq.

"Inhabits the hill-regions of India generally, Arracan, and Tenasserim."—(Blyth.)

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* But the specific name quite inapplicable.

† Previously used by Swainson.

1030. *CHRYSOCOCCYX XANTHORHYNCHUS, Horsfield Sp.*

Cuculus xanthorhynchus, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 179 (1821); *Zool. Res. in Java, t.* 59. *Latham, Hist. of B.* III. *p.* 287.

Chrysococcyx xanthorhynchus, *Blyth, J. A. S. Beng.* XI. *p.* 919; *Cat. B. Mus. A. S. Beng. p.* 73. *G. R. Gray, Gen. of B.* II. *p.* 463. *Bonap., C. G. Av. p.* 106.

Lampromorpha amethystina, *Vigors, P. Z. S.* (1831), *p.* 98.

Amethystine Cuckoo, *Blyth.*

A. Java (type). From Dr. Horsfield's Collection.

"Inhabits the Tenasserim provinces, Malayan peninsula and archipelago, and the Philippines (?)."—(Blyth.)

1031. *CHRYSOCOCCYX MALAYANUS, Raffles Sp.*

Cuculus malayanus, *Raffles, Trans. Linn. Soc.* XIII. *p.* 286.

Cuculus lucidus, *apud Temm., Pl. Col. t.* 102, *f.* 1.

*a.* Drawing. Sumatra. From Raffles's Collection.

*b. c.* Malacca. Presented by Dr. Cantor, 1854.

1032. *CHRYSOCOCCYX LUCIDUS, Gmelin Sp.*

Cuculus lucidus, *Gmelin, Syst. Nat.* I. *p.* 421 (1788). *Vigors et Horsf., Trans. Linn. Soc.* XV. *p.* 301. *G. R. Gray, Gen. of B.* II. *p.* 463.

Chrysococcyx lucidus, *Gould, B. of Australia,* IV. *t.* 88. *Bonap., C. G. Av. p.* 106.

Chalcites lucidus, *Lesson, Tr. d'Orn. p.* 153.

Shining Cuckoo, *Latham.*

*a.* ♀. Australia. From Mr. G. Fradgeley.

"In Australia this species is very widely dispersed, being an inhabitant of every part of the continent and Van Diemen's Land. In the latter country it is strictly migratory, arriving in September, and departing again in January. If it be not so truly migratory in New South Wales, the great mass certainly retire in winter to the northward, where insect food is more abundant. I have, however,

seen it in the Botanic Garden at Sydney in the month of March. Its food consists of insects of various orders, the stomachs of those examined containing the remains of *Hymenoptera*, *Coleoptera*, and caterpillars. While searching for food, its motions, although very active, are characterized by a remarkable degree of quietude, the bird leaping about from branch to branch in the gentlest manner possible, picking an insect here and there, and prying for others among the leaves and the crevices of the bark with the most scrutinizing care. Its flight is rather quick and undulating, and when passing from one tree to another on a sunny day, the brilliant green colouring of the male shows very beautifully. Like the true Cuckoos, it always deposits its single egg in the nest of another bird : in Van Diemen's Land, those of the *Malurus longicaudus* and *Acanthiza diemenensis* are generally selected ; in New South Wales, the *Malurus cyaneus* and the *Acanthiza chrysorrhœa* are among others the foster-parents ; in Western Australia, the nests of the various kinds of Honey-eaters, and the *Malurus splendens*, are resorted to : and it is a remarkable fact that the egg is mostly deposited in a domed nest, with a very small hole for an entrance. Its note is a mournful whistle, very like that usually employed to call a dog. The egg is of a clear olive-brown, somewhat paler at the smaller end, about $\frac{11}{16}$ of an inch long, by $\frac{1}{2}$ an inch in breadth. The stomach is capacious, membranous, and slightly lined with hair."—(Gould, B. of Australia.)

1033. *CHRYSOCOCCYX BASALIS*, *Horsfield Sp.*

Cuculus basalis, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 179 (1821). *Latham, Hist. of B.* III. *p.* 287.

Chrysococcyx basalis, *Blyth, Cat. B. Mus. A. S. Beng. p.* 73.

Cuculus chalcites, *Illiger*, *Temm.*, *Pl. Col. t.* 102, *f.* 2.

Chrysococcyx chalcites, *Blyth, J. A. S. Beng.* XI. *p.* 919 ; XII. *p.* 944. *Bonap., C. G. Av. p.* 106.

Chrysococcyx lucidus, *apud Strickland, Journ. As. Soc. Beng.* XIII. *p.* 391.

A. Java (type). From Dr. Horsfield's Collection.

Genus Eudynamys, *Vigors et Horsf. Trans. Linn. Soc.* XV. *p.* 303 (1826).

1034. *EUDYNAMYS ORIENTALIS*, *Linn. Sp.*

♂ Cuculus orientalis, *Linn., S. N.* I. *p.* 168. (*Pl. Enl.* 274, *f.* 1.) *Horsf., Trans. Linn. Soc.* XIII. *p.* 178.

*Lath., Gen. Hist. of B.* III. *p.* 282. *Sundevall, Physiogr. Sällsk. Tidsk.* (1837); *Ann. N. H.* XVIII. *p.* 400. *F.* (*Buch.*) *Hamilton, MS.* I. *p.* 32.

Eudynamys orientalis, *Vigors et Horsf., Trans. Linn. Soc.* XV. *p.* 304. *Vigors, Memoir, Raffles, p.* 671. *Sykes, P. Z. S.* (1832), *p.* 97. *Jerdon, Madras Journ.* XI. *p.* 222. *Pearson, J. A. S. Beng.* X. *p.* 657. *Blyth, J. A. S. Beng.* XI. *p.* 913; XII. *p.* 245; XVI. *p.* 468; *Ann. N. H.* (1847), *p.* 385; *Jard's Contr. Orn.* (1850), *p.* 69; *Cat. B. Mus. A. S. Beng. p.* 73. *Hodgson, Cat. B. of Nepal, p.* 119. *G. R. Gray, Gen. of B.* II. *p.* 464. *Bonap., C. G. Av. p.* 100. *Tytler, Ann. N. H.* XIII. *n. s. p.* 367. *Layard, Ann. N. H.* XIII. *n. s. p.* 451. *Burgess, P. Z. S.* (1854), *p.* 257. *Motley et Dillwyn, Nat. Hist. of Labuan, p.* 55.

♀ Cuculus mindanensis, *Linn.* (*Pl. Enl.* 277).

♀ Cuculus scolopaceus, *Linn.* (*Pl. Enl.* 586. *Edw. Birds, t.* 59).

♀ Cuculus maculatus, *Gmelin, S. N.* I. *p.* 415. (*Pl. Enl.* 764.)

Var. ? ♂ Cuculus indicus, *Latham, Ind. Orn.* I. *p.* 211; *Gen. Hist. of B.* III. *p.* 285.

Cuculus niger, *Linn., S. N.* I. *p.* 415.

Gymnopus niger, *Blyth.*

Eudynamys niger, *Bonap., C. G. Av. p.* 101, *n.* 2.

Eudynamys indicus *et* maculatus *et* niger, *G. R. Gray, Gen. of B.* II. *p.* 464.

Eudynamys australis, *apud Bonap., C. G. Av. p.* 101, *n.* 3.

Eastern Black Cuckoo, *Latham.*

Coël ♂, Hind., (*Buch.*) *Hamilton. Jerdon. Blyth.*

Kokil, Bengal, (*Buch.*) *Hamilton. Sundevall.*

Tuhu ♂, Chule ♀, Java, *Horsfield.*

Coha and Cowde-coha, Ceylon, *Layard.*

Coosil and Coël, Mal., Ceylon, *Layard.*

A. ♂ (jun.). Dukhun. Presented by Colonel Sykes.

*b. c.* ♂. Bengal. From Dr. Falconer's Collection.

*d. e.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

*f.* ♀. Bootan. From Pemberton's Collection.

*g. h.* ♂ ♀. Drawings. From F. (Buch.) Hamilton's Collection.

*i.* ♀. Drawing. Ceylon. From M. Joinville's Collection.

*j. k. l. m. n. o.* ♂ ♀. Adult and young. Malacca, Pinang. Presented by Dr. Cantor, 1854.

*p. q.* ♂ ♀. Java. From Dr. Horsfield's Collection.

"This bird appears perfectly identical, from India, China, and the Malay countries."—(Blyth.)

"This well-known bird is found in all parts of the peninsula of India, where there is a sufficiency of trees. It is common in the Carnatic in groves, gardens, and avenues, and also in the west coast, but rare in the table-land. It feeds entirely on fruit, and is remarkably fond of the fig of the banian-tree. The female lays its eggs in the nest of the common Indian Crow (*Corvus splendens*), from which it dislodges the crow's eggs. It is said always to choose this crow's nest."—(Jerdon.)

"A well-known and noisy bird, with singularly loud notes, not at all like those of a Cuckoo. These birds are frugivorous. In the stomachs of many the fruits of the *Bergera Kœnigi* and *Uvaria undulata* only were found. The tongue is exactly like that of the *Cuculus canorus*. Irides rich lake."—(Col. Sykes.)

"The Coël is very commonly kept caged by the native inhabitants of Calcutta, becoming quite fearless and familiar, and frequently uttering its loud cry (*koyo, koyo, koyo*, with variations), as well as another note, which truly corresponds to the sound *cuckoo* emitted by the bird of Europe, and which sounds like *ho-whee-yo*, delivered at intervals, as the *C. canorus* utters its well-known cry, often for a long while together, and not unfrequently in moonlight nights. It invariably deposits its eggs in the nests of the *Corvus culminatus* and *C. splendens*.

The Coël, though a bird of the skulking unobtrusive habits of the *Cuculinæ* generally, and having the same quiet gliding movements from bough to bough, is not particularly shy, allowing of a near approach, while itself lies still to avoid observation, especially when feeding, at which time they may be shot as fast as a gun can be loaded, by watching for them under a tree, to which they resort for its fruit, as a spreading banyan in its season; and they are particularly attached to the densely-foliaged *Bokul* (Bengal) or *Moulsari*

(Hind.), (*Mimusops Elengi*), keeping almost exclusively to this tree while its fruit is ripe; and at other seasons feeding on various berries, which are swallowed entire, and the large seeds of some of them ejected clean by the mouth. Though several may often be seen quietly feeding together, and sometimes in very conspicuous situations, there is no association amongst them; but each pursues its course independently, as we believe do all other *Cuculinæ*. As their breeding-season approaches, however, about the commencement of the year, or a little before, the Coëls become very noisy, and continue so for several months during the hot weather. The frequent utterance of the loud call-note of both sexes (a continuous repetition of the sound *kuil* many times successively, with a liquid intonation of the *l*, and slight variations), though certainly not unmelodious when heard sufficiently far off, and in moderation, being thoroughly cuculine in its tone, becomes wearisome from its monotonous reiteration at all hours of the day and night, more or less. The natives seem to admire it much, as they frequently cage this bird, feeding it almost entirely on boiled rice, with sometimes a plantain! and its voice, when thus heard too close, becomes insufferable to European organs. The male Coël has also another cry (*ho-ā-o*) corresponding to the *cuckoo* note of *Cuculus canorus*, and which is delivered in like manner. The female, as before remarked, appears to deposit her eggs invariably in the nests of the true *Corvi*, and so abundantly, that we have known five or six Coëls' eggs to be brought in together by a person who had been destroying crows' nests, each taken from a different one. The egg is certainly so often found alone, that there can be little doubt that the Coël destroys the eggs of the Crow at the time her own is deposited; but it is doubtful whether the young Coël is endowed with the instinct of ejecting any companions it may have, and it would seem that it has not that propensity; but the fact remains to be systematically observed. Mr. Frith informs us that he has never found more than one Coël's egg in a nest, and, in his long experience, has only met with it in those of the two Indian Crows. He has repeatedly seen the common *C. splendens* attack and drive off the female Coël from its neighbourhood; and in one instance observed the latter, while trying to escape the pursuit, dash itself against a pane of glass in an outhouse with so much force as to fall dead from the injury it received, the bill and fore-part of the head being quite smashed. The current native story is, that the Crow soon discovers the young Coël to be an interloper in its nest, and drives it away at an early age to find its own provender; but this is certainly not the

case, as shown by an observation made by Major Davidson (J. A. S. Beng. VIII. p. 684), who remarks: 'Happening to stand in the verandah of my bungalow, I heard a loud chattering noise on the lawn, and believing that a young Crow had fallen from its nest, I advanced to put it out of the reach of harm. Instead of a Crow, I was much surprised to find that an old Crow was feeding a young bird of a dark-brown colour, transversely striped with cinereous bars. On asking its name of a native who also saw it, he replied that it was a young Coël. I approached it within a few yards, and saw it receive food from the Crow's bill in the usual supplicating posture, with extended wings and body slightly quivering. My native informant also assured me that the Coël was always thus reared by the Crow, who invariably continued to feed its adopted nestling until it could shift for itself.'

The egg of the Coël measures generally 1¼ inches long; sometimes, in more rotund specimens than usual, little more than 1 in. by ¾ in. to ⅞ in. where broadest, having ordinarily the small end well distinguished, and, indeed, much resembling in size and form the egg of *Dendrocitta rufa*, but of a considerably deeper colour; still, it is of a pallid olive-green of different shades, marked all over with numerous reddish-dusky spots, much as in some Blackbirds' eggs, which are more numerous—in some much more numerous—towards the large end, where they incline to form a zone; and, notwithstanding the difference of ground-colour from the egg of *Cuculus canorus*, there are few acquainted with the latter who would not at once suggest the Coël's to be a *Cuculine* egg of some kind, from a certain resemblance in its appearance to the Cuckoo's egg, which at once strikes the observer.'

The Rev. T. Phillips, writing to Mr. Blyth, says, 'With respect to the Crow discovering that the bird it has reared is an interloper, and consequently ejecting it from the nest, you seem to have doubts, on account of the anecdote related by Major Davidson; now, against this I have to bring my own testimony, and that of an intelligent native, who from his youth has been a keen sportsman and bird-fancier: he is also a man of undoubted veracity. He states that after the Coël has laid its egg in the Crow's nest, it comes often to watch the nest from a little distance, to see when its young is expelled. This happens as soon as it puts on the speckled dress, which is, when it is fledged. As soon as it is driven away, the mother takes her young into her charge, and feeds it. This he has often observed, being in the habit of watching these birds when at Gwalior.

This statement is confirmed by others. As to the mother feeding her young, I have seen it myself. The young, though full-grown, sat quietly in a peepul-tree while its mother hunted for fruit; and she several times fed it before me. I watched them near at hand for some time, and at last they both flew away, the mother uttering, as she flew, her well-known cry. I have since seen full-grown young Coëls feeding themselves alone.'

'The truth, we apprehend, is,' continues Mr. Blyth, 'that the Coël produces a series of several eggs, at intervals of two or three days, like the European Cuckoo; and as they are hatched, and the young ejected in succession, she takes charge of each of the latter in turn, and feeds it for a day or two only, by which time it learns to shift for itself; but we regret that we have not had the leisure to observe more *in propriâ personâ*.'

This bird is very abundant in Java, and, although it delights in shady woodland tracts, gladly seeks the confines of villages, and is universally known by the cry of *tuhu-tuhu*, from which the native name is derived."—(Horsfield, Zool. Res. in Java.)

January 31st, 1857.

## Fam. V. TROGONIDÆ, *Swainson.*

Genus Harpactes, *Swains., Class. of B.* II. *p.* 337 (1837).

Hapalurus, *Reichenbach* (1850).

Aphalharpactes *et* Oreskios, *Bonap.* (1854).

1035. *HARPACTES RUTILUS, Vieillot Sp.*

Trogon rutilus, *Vieillot, N. Dict. d'Hist. Nat.* VIII. *p.* 313. *Le Vaillant, Hist. Nat. Cour. t.* 14.

Harpactes rutilus, *G. R. Gray, Gen. of B.* I. *p.* 71; *List of Birds Brit. Mus. pt.* II. *sec.* I. *p.* 44. *Blyth, Cat. B. Mus. A. S. Beng. p.* 80. *Bonap., C. G. Av. p.* 150.

Trogon Duvaucelii, *Temminck, Pl. Col.* 291.

Harpactes Duvaucelii, *Swainson, Classif. of B.* II. *p.* 337.

Trogon (Harpactes) Duvaucelii, *Gould, Monogr. Trogon. t.* 32.

Trogon cinnamomeus, *Temminck, Monogr. Trogon. Text de Pl. Col.*

Trogon Kasumba (jun.), *Raffles, Trans. Linn. Soc.* XIII. *p.* 283.

Trogon fasciatus, var. B, *Latham, Hist. of B.* III. *p.* 213.

Duvaucel's Trogon, *Temminck.*

Ramguba, Malacca.

*a.* ♂. Drawing (*T. Kasumba* (*jun.*), Raffles). From Raffles's Collection.

*b. c. d.* ♂ ♀. Malacca. Presented by Dr. Cantor, 1854.

*e. f.* ♂. Malacca. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

1036. *HARPACTES HODGSONI*, *Gould.*

Trogon (Harpactes) Hodgsonii, *Gould, Monogr. Trogon. t.* 34.

Harpactes Hodgsonii, *McClelland, P. Z. S.* (1839), *p.* 166. *G. R. Gray, Gen. of B.* I. *p.* 71. *Hodgs., Cat. B. of Nepal, p.* 56. *Blyth, J. A. S. Beng.* XI. *p.* 168; *Cat. B. Mus. A. S. Beng. p.* 80. *Bonap., C. G. Av. p.* 151.

Trogon dilectus, *F.* (*B.*) *Hamilton, MS.* I. *p.* 63.

? Trogon erythrocephalus, *Gould, P. Z. S.* (1834), *p.* 25.

Trogon (Harpactes) erythrocephalus, *Swainson, Classif. of B.* II. *p.* 337. *Gould, Monogr. Trogon. t.* 33.

Harpactes erythrocephalus, *G. R. Gray, Gen. of B.* I. *p.* 71; *List of B. Brit. Mus. pt.* II. *sect.* I. *p.* 45. *Tickell, J. A. S. Beng.* XXIV. *p.* 278 (1855).

Trogon fasciatus, var. A, *Latham.*

Hodgson's Trogon, *Gould.*

Suda Sohaghin, Bengal, *Hamilton* (*male*).

Hummesha Peeara, Hind., *id.* (*male*).

Cuchcuchea, Bengal, *id.* (*female*).

Htoo-ta-roo, Arracan, *Phayre.*

*a. b. c. d. e. f.* ♂ ♀. Adult and young. Nepal. Presented by B. H. Hodgson, Esq.

*g.* ♂. Adult. Bootan. From Pemberton's Collection.

*h. i.* ♂. Darjeeling. From Messrs. Schlagintweit's Collection.

*j.* Drawing. Assam. From McClelland's Collection.

*k.* ♂ ♀. Drawing. From F. (B.) Hamilton's Collection.

"Inhabits Nepal, Assam, Sylhet, and Arracan."—(Blyth.)

Capt. Tickell remarks, that "*H. erythrocephalus* was common in the hills of the interior of the Tenasserim provinces, from 3,000 feet upwards. Below, it was replaced by *H. Oreskios*. It flies in small troops, and is active and vociferous in the morning, solitary and quiet during the heat of the day, sitting in the shade. It appears larger and brighter than in Nepal and Sikim specimens."

1037. *HARPACTES FASCIATUS, Gmelin Sp.*

Trogon fasciatus, *Gmelin, S. N.* I. *p.* 405. *Latham, Ind. Orn.* I. *p.* 200. *Pennant, Ind. Zool. p.* 35, *t.* 4.

Harpactes fasciatus, *Blyth, Cat. B. Mus. A. S. Beng. p.* 80. *Kelaart, Prod. Faunæ Zeylan, p.* 98. *Layard, Ann. N. H.* (1853), *p.* 171. *Gould, Birds of Asia, pt.* VI. (1854), *tab.*

Trogon ceylonensis, *Brisson, Orn.* II. *p.* 91.

Trogon malabaricus, *Gould, P. Z. S.* (1834), *p.* 26; *Monogr. Trogon. t.* 31.

Harpactes malabaricus, *Swainson, Class. of B.* II. *p.* 337. *Jerdon, Madras Journ.* XI. *p.* 232. *G. R. Gray, Gen. of B.* I. *p.* 171; *Cat. B. Brit. Mus. pt.* II. *sect.* I. *p.* 44. *Bonap., C. G. Av. p.* 151.

Hapalurus malabaricus, *Reichenbach* (1850).

The Fasciated Trogon.

Kufni-Churi of some, Hind., *Jerdon.*

Kurna, Mahr., *Jerdon.*

Kakurni Kukki, Canarese, *Jerdon.*

Kantvan Kondea, Cingalese, *Kelaart.*

*a.* Drawing. Ceylon. From Joinville's Collection.

"This very richly-plumaged Trogon is of rare occurrence in Southern India, and I have only found it in the densest portions of lofty jungle in Malabar and the Wynaad. It is, however, enumerated in Mr. Elliot's Catalogue. It is generally seen seated motionless on the branch of a tree, occasionally flying off to capture an insect, and

sometimes, though rarely, returning to the same perch, generally taking up a new position, and wandering much about from tree to tree. I almost always observed it solitary, occasionally in pairs; and on one occasion four or five were seen together. In the stomach I have always found fragments of large coleopterous insects. Its Hindostani name is given (says Mr. Elliot) 'from its sitting with its head sunk in the shoulders, as if it had no neck, or as if dressed in a faqueer's *kufni*.' "—(Jerdon.)

"In Ceylon, it inhabits the high tree-jungle which the natives call Mookoolaney; it there frequents the summits of the loftiest trees, and feeds on spiders, mantidæ, and coleoptera. It sits across a branch with the head drawn down between the shoulders; it is by no means a solitary bird, being found in small parties of three or four in number, which always follow each other when one takes wing. It does not appear to extend its range beyond Kandy. Dr. Kelaart says it is sometimes very numerous at Newera Elia."—(Layard.)

1038. *HARPACTES KASUMBA, Raffles Sp.*

Trogon Kasumba, *Raffles, Trans. Linn. Soc.* XIII. *p.* 282 (1821).

Harpactes Kasumba, *Blyth, Cat. B. Mus. A. S. Beng. p.* 80. *Gould, Birds of Asia, pt.* VIII. (1856), *tab.*

Trogon fasciatus, *Temm., Pl. Col.* 321. *Lesson, Tr. d'Orn. p.* 121.

Trogon Temminckii, *Gould, Monogr. of Trogon. t.* 29.

Harpactes Temminckii, *Swainson, Class. of B.* II. *p.* 337. *G. R. Gray, Gen. of B.* I. *p.* 171; *List B. Brit. Mus. pt.* II. *sect.* I. *p.* 44. *Bonap., C. G. Av. p.* 151.

Trogon flagrans, *Kuhl, Tidsch. Nat. Gesch.* (1835), *p.* 336.

Trogon Kondea, *Cuvier.*

Kasumba, Sumatrans, *Raffles.*

Burong Kasumba, Malacca.

*a. b. c.* ♂ ♀. Malacca. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

*d.* ♀. Malacca. Presented by Dr. Cantor, 1854.

1039. *HARPACTES DIARDI, Temminck Sp.*

Trogon Diardii, *Temminck, Pl. Col.* 541.

Harpactes Diardi, *Gould, Monogr. Trogon. t.* 30. *G. R. Gray, Gen. of B.* I. *p.* 171; *List B. Brit. Mus. pt.* II. *sect.* I. *p.* 44. *Blyth, Cat. B. Mus. A. S. Beng. p.* 80. *Bonap., C. G. Av. p.* 151.

Diard's Trogon.

*a.* ♂. Malacca. Reserved from India Collection, Exposition Universelle at Paris, 1855.

*b. c.* ♀. Malacca. Presented by Dr. Cantor, 1854.

1040. *HARPACTES ORESKIOS, Temminck Sp.*

Trogon Oreskios, *Temminck, Pl. Col.* 181.

Harpactes Oreskios, *Gould, Monogr. Trogon. t.* 36. *G. R. Gray, Gen. of B.* I. *p.* 71; *Cat. of Birds Brit. Mus. pt.* II. *sect.* I. *p.* 45. *Blyth, Cat. B. Mus. A. S. Beng. p.* 80.

Harpactes Gouldii, *Swainson, Classif. of B.* II. *p.* 337 (1837).

Oreskios Gouldii, *Bonaparte* (1854).

The Mountain Trogon, *Temminck.*

A. Tenasserim. From the Asiatic Society of Bengal.

1041. *HARPACTES REINWARDTI, Temminck Sp.*

Trogon Reinwardtii, *Temm., Pl. Col.* 124.

Harpactes Reinwardti, *G. R. Gray, Gen. of B.* I. *p.* 71; *List of Birds Brit. Mus. pt.* II. *sect.* I. *p.* 45. *Bonap., C. G. Av. p.* 151.

Aphalharpactes Reinwardti, *Bonap.* (1854).

Apaloderma Reinwardtii, *Swainson, Classif. of B.* II. *p.* 337.

Trogon (Apaloderma) Reinwardtii, *Gould, Monogr. Trogon. t.* 29.

Reinwardt's Trogon, *Temminck.*

A. Sumatra. From Raffles's Collection.

## TRIBE V. TENUIROSTRES, *Cuvier.*

### Fam. I. CERTHIADÆ, *Vigors.*

#### Subfam. CERTHIINA.

Genus Rimator, *Blyth, J. A. S. Beng.* XVI. *p.* 154 (*Feb.* 1847).

Caulodromus, *G. R. Gray, Gen. of B.* I. *p.* 143 (*April*, 1847).

Merva, *Hodgson, Calcutta Journ. Nat. H. p.* 96 (*April*, 1847).

1042. *RIMATOR MALACOPTILUS, Blyth.*

Rimator malacoptilus, *Blyth, J. A. S. Beng.* XVI. *p.* 154 (*Feb.* 1847); *id. pp.* 864, 878; *Ann. Nat. Hist.* XX. *n. s. p.* 317 (*Nov.* 1847); *Catal. B. Mus. A. S. Bengal, App. p.* 338.

Caulodromus Gracei, *G. R. Gray, Gen. of B.* I. *p.* 144, *t.* 44, *f.* 2 (*April*, 1847); *Ann. Nat. Hist.* XIX. *n. s. p.* 352 (*May*, 1847). *Bonap., C. G. Av. p.* 225.

Merva Jerdoni, *Hodgson, Calcutta Journ. N. H. p.* 96 (*April*, 1847).

*a. b.* Nepal (*M. Jerdoni*, Hodgs., No. 927). Presented by B. H. Hodgson, Esq., 1853.

*c.* Darjeeling. From Pearson's Collection.

Genus Certhia, *Linn., Syst. Nat.* (1735).

1043. *CERTHIA HIMALAYANA, Vigors.*

Certhia himalayana, *Vigors, P. Z. S.* (1831), *p.* 174. *Blyth, J. A. S. Beng.* XIV. *p.* 580; XVI. *p.* 864; *Ann. Nat. Hist.* XX. *p.* 317; *Catal. B. Mus. A. S. Beng. p.* 188. *G. R. Gray, Gen. of B.* I. *p.* 143. *Gould, B. of Asia* (1850), *pt.* II. *t.* . *Bonap., C. G. Av. p.* 225.

Certhia asiatica, *Swainson*, 2¼ *Cent. of B.*
The Himalayan Creeper, *Vigors.*

*a. b.* Pushut. *c.* Jellalabad. From Griffith's Collection.

"Common in the Deyra Doon."—(Blyth.)

1044. *CERTHIA NIPALENSIS, Hodgson.*

Certhia nipalensis, *Hodgson, J. A. S. Beng.* XIV. *p.* 581 (1845). *Blyth, J. A. S. Beng.* XVI. *p.* 864; *Ann. Nat. Hist.* XX. *p.* 317; *Catal. B. Mus. A. S. Beng. p.* 188. *Gould, B. of Asia* (1850), *t.* . (*upper fig.*). *Bonap., C. G. Av. p.* 225.

Certhia spilonota, *apud Hodgson's Catal. B. of Nepal, p.* 611.

The Nepal Creeper.

*a.* Bootan. From Pemberton's Collection.

*b.* Nepal. Presented by B. H. Hodgson, Esq.

1045. *CERTHIA DISCOLOR, Blyth.*

Certhia discolor, *Blyth, J. A. S. Beng.* XIV. *p.* 580 (1845); XVI. *p.* 864; *Ann. Nat. Hist.* XX. *p.* 317; *Catal. B. Mus. A. S. Beng. p.* 188. *Gould, B. of Asia* (1850), *t.* . (*lower fig.*). *Bonap., C. G. Av. p.* 225.

The Sikim Creeper.

*a.* (type specimen). Darjeeling. From the Asiatic Society of Bengal.

*b. c. d. e. f.* Sikim. Presented by B. H. Hodgson, Esq.

"Distinguished by having the entire under-parts uniform dingy brown, or very much sullied albescent (inclining in some to whitish on the abdominal region), and no ferruginous on the flanks, but only on the lower tail-coverts; whereas in *C. nipalensis*, Hodgson, the under-parts are pure white, tinged with ferruginous on the sides of the breast, and the flanks as well as the lower tail-coverts are deep ferruginous; the upper-parts also are a shade less rufous than in *C. nipalensis*, and the pale central spots to the feathers are more diffused (*i. e.* so much less defined), especially those of the head. Upon a first view, it might be thought that the under-parts of *C. discolor* are merely dirty; but the colour is not to be washed out; while in *C. nipalensis* the white is alike pure, and the flanks deep ferruginous. *C. discolor* is common at Darjeeling."

Genus Tichodroma, *Illiger, Prod. Syst. Mamm. p.* 210 (1811).
Petrodroma, *Vieillot* (1816).

1046. *TICHODROMA MURARIA, Linn. Sp.*

Certhia muraria, *Linn. S. N.* I. *p.* 184 (*Pl. Enl.* 372). *Lath. Hist. of B.* IV. *p.* 211.

Tichodroma muraria, *Illiger, Prod. Syst. Mamm. p.* 210. *G. R. Gray, Gen. of B.* I. *p.* 145. *Hodgs., Catal. B. of Nepal, p.* 61. *Blyth, J. A. S. Beng.* XIV. *p.* 580; *Catal. B. Mus. A. S. Beng. p.* 189. *Hutton, J. A. S. Beng.* XVI. *p.* 782; *Bonap., C. G. Av. p.* 225. *Cabanis, Catal. B. Mus. Heine, p.* 94.

Tichodroma phœnicoptera, *Temminck.*

Tichodroma europæa, *Stephens. Gould, B. of Eur. t.* 239.

Tichodroma subhemalayana, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 82.

Tichodroma nepalensis, *Bonap., C. G. Av. p.* 225 (1850).

The Rock or Wall Creeper.

Dewal Gaiyuk, Pushut, *Griffith.*

*a. b. c. d.* Pushut and Jellalabad. From Griffith's Collection.

*e.* Ladakh. *f.* Kumaon. Presented by Capt. R. Strachey.

*g. h.* Himalaya. Reserved from the Indian Collection, Exposition Universelle at Paris, 1855.

"This bird inhabits the mountainous parts of Europe and Asia. It is usually seen flitting from one projection of a rock to another, and hopping up and down the sides of them in continual search after its favourite food, which consists chiefly of spiders and their eggs, and also of various kinds of insects. Sometimes these birds are noticed hanging on the face of a ruined wall by means of their strong curved claws while seeking their food."—(Gray's Gen. of Birds.)

"Common in the Himalaya, as also in Western Asia. Mr. Vigne ('Travels in Kashmir,' II. p. 20) remarks that it 'is found throughout the alpine Punjab, displaying the delicate scarlet patch upon its grey wings, as it flits over the perpendicular banks with the movements of a butterfly rather than of a bird.' "—(Blyth.)

"This beautiful little bird was very common on the rocks near Candahar, and in other parts of Afghanistan."—(Capt. Hutton.)

"Irides brown; contents of stomach various insects, abundance of *ticks*, such as infest cattle."—(Griffith, MS. Notes.)

Subfam. SITTINA.

Genus SITTA, *Linn. Syst. Nat.* (1735).

1047. *SITTA CÆSIA, Wolf et Meyer.*

Sitta cæsia, *Wolf et Meyer, Taschenb. p.* 128 (*Pl. Enl.* 623). *Gould, B. of Eur. t.* 234. *Bonap., C. G. Av. p.* 227. *Blyth, Catal. B. Mus. A. S. Beng. p.* 189. *Cabanis, Catal. B. Mus. Heine, p.* 93.

Sitta affinis, *Blyth, Journ. As. Soc. Beng.* XV. *p.* 288 (1846); *id.* XVI. *p.* 475.

Sitta europæa, auctorum, *nec. Linnæus.*

*a. b.* Paris. Presented by John Gould, Esq.

*c.* France. Presented by P. L. Sclater, Esq.

1048. *SITTA HIMALAYENSIS, Jardine et Selby.*

Sitta himalayensis, *Jardine et Selby, Ill. Orn.* III. *pl.* 144 ( ). *Blyth, Journ. As. Soc. Beng.* XI. *p.* 460. *G. R. Gray, Gen. of Birds,* I. *p.* 148. *Gould, Birds of Asia* (1850), *pl.* . *Bonap., C. G. Av. p.* 227.

Sitta himalayana, *Blyth, Journ. As. Soc. Beng.* XIV. *p.* 579; *Catal. Birds Mus. As. Soc. Beng. p.* 190.

Sitta nipalensis, *Hodgson, Journ. As. Soc. Beng.* V. *p.* 779 ( ). *Gray's Zool. Misc.* (1844), *p.* 82; *Catal. Birds of Nepal, p.* 61. *Blyth, Journ. As. Soc. Beng.* XIV. *p.* 580; XV. *p.* 289. *G. R. Gray, Gen. of Birds,* I. *p.* 148.

Sitta vitticauda, *Jameson, Mem. Wern. Nat. Hist. Soc.* VII. *p.* 490.

Sitta indica, *Burton.*

Indian Nuthatch, *Latham, Hist. of B.* IV. *p.* 73. ?

Nepalese Nuthatch, *Hodgson.*

A. *b.* Bootan. From Pemberton's Collection.

*c. d.* Darjeeling. From Pearson's Collection.

*e. f. g. h.* Nepal (*S. nipalensis*, Hodgs.). Presented by B. H. Hodgson, Esq.

*i. j.* Kumaon. From Capt. R. Strachey's Collection.

1049. *SITTA SYRIACA, Ehrenberg.*

Sitta syriaca, *Ehrenberg, Symb. Phys. G. R. Gray, Gen. of B.* I. *p.* 147. *Bonap., C. G. Av. p.* 227. *Cabanis, Catal. B. Mus. Heine, p.* 93.

Sitta rupestris, *Temminck, Man. d'Orn. Ill. p.* 287.

Sitta Neumeyeri, *Michahell, Isis.*

Sitta saxatilis, *Schinz.*

Sitta rufescens, *Gould, B. of Eur. pl.* 235.

*a.* Bolan Pass, Afghanistan. *b.* Candahar. From Griffith's Collection.

1050. *SITTA LEUCOPSIS, Gould.*

Sitta leucopsis, *Gould, Proc. Zool. Soc.* (1849), *p.* 113; *Birds of Asia, plate* (1850). *Bonap., C. G. Av. p.* 227.

Sitta castanilia, *Bonap. MS.*

White-faced Nuthatch, *Gould.*

*a.* N. W. Himalaya. Presented by John Gould, Esq.

1051. *SITTA CASTANEOVENTRIS, Franklin.*

Sitta castaneoventris, *Franklin, Proc. Zool. Soc.* (1831), *p.* 121; *J. A. S. Beng.* V. *p.* 779. *Jardine et Selby, Ill. Orn.* III. *pl.* 145. *Blyth, Journ. As. Soc. Beng.* XI. *p.* 459; XIV. *p.* 580; *Catal. B. Mus. As. Soc. Beng. p.* 190. *G. R. Gray, Gen. of B.* I. *p.* 148. *Gould, B. of Asia, plate* (1850). *Bonap., C. G. Av. p.* 227.

Sitta castanea, *Lesson, Trait. d'Orn. p.* 316 (1831).

Sitta ferrugineoventris, *Gould, Athenæum* (1849), *p.* 1183.

Ferruginous-bellied Nuthatch, *Latham, Hist. of B.* IV. *p.* 74.

Chestnut-bellied Nuthatch, *Jerdon.*

*a. b.* Bharrowul. From Griffith's Collection.

*c. d.* Rajmahl. From the Asiatic Society of Bengal.

"Sexes alike. Contents of stomach, insects and seeds; nostrils of Dendrophila."—(Griffith's MS. Notes.)

"Inhabits the hilly regions of the Indian peninsula, extending to the Rajmahl district of Bengal."—(Blyth.)

"I have shot specimens of this Nuthatch in Goomsoor, in high forest jungle, and have seen others from the top of the Guzzlehutty Pass, in Mysore. Bill black; legs plumbeous-brown."—(Jerdon.)

1052. *SITTA CINNAMOVENTRIS, Blyth.*

Sitta cinnamoventris, *Blyth, Journ. As. Soc. Beng.* XI. *p.* 459 (1842); XIV. *p.* 579; XV. *p.* 289; *Catal. B. Mus. As. Soc. Beng. p.* 189. *G. R. Gray, Gen. of B.* I. *p.* 148. *Hodgson's Catal. Birds of Nepal, p.* 61. *Gould, B. of Asia, plate* (1850).

Sitta cinnamomeiventris, *Cabanis, Catal. B. Mus. Heine, p.* 93.

Sitta castaneoventris, *apud Hodgson, Gray's Zool. Mis.* (1844), *p.* 82.

Sitta nipalensis, *apud Bonap., C. G. Av. p.* 227.

Cinnamon-bellied Nuthatch, *Blyth.*

Sisi, Hind., *F.* (*Buch.*) *Hamilton.*

*a. b.* ♂ ♀. Himalaya (types). From the Asiatic Society of Bengal.

*c. d.* ♂. Bootan. From Pemberton's Collection.

*e. f. g.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

Inhabits the South-Eastern Himalayas.

"Observed in pairs or families in the mango-groves at Chunar. In the rainy season it is said to go to the hills."—(F. (Buch.) Hamilton, MS. II. p. 139.)

Genus Dendrophila, *Swainson, Classif. of B.* II. *p.* 318 (1837).

Orthorhynchus, *Horsf. MS.* (*Swains. Zool. Ill.*)

1053. *DENDROPHILA FRONTALIS, Horsfield Sp.*

Sitta frontalis, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 162 (1821). *Vigors, Memoir Raffles, p.* 670. *Latham, Hist. of Birds,* IV. *p.* 74. *Swainson, Zool. Ill.* 1*st ser. t.* 2. *Tickell, J. A. S. Beng.* II. *p.* 579. *McClelland, P. Z. S.* (1839), *p.* 165. *G. R. Gray, Gen. of B.* I. *p.* 148. *Hodgson, Catal. B. of Nepal, p.* 62.

Dendrophila frontalis, *Swainson, Classif. of B.* II. *p.* 318. *Jerdon, Madras Journ.* XI. *p.* 218. *Blyth, Journ.*

*As. Soc. Beng.* XIV. *p.* 580; *Catal. Birds Mus. As. Soc. Beng. p.* 190. *Mason's Natural Prod. of Burmah, p.* 280. *Bonap., C. G. Av. p.* 226. *Cabanis, Catal. B. Mus. Heine, p.* 93.

Motacilla frontalis, *Raffles, Trans. Linn. Soc.* XIII. *p.* 313.

Sitta velata, *Temminck, Pl. Col.* 72, *f.* 3 ( ).

Sitta corallina, *Hodgson, J. A. S. Beng.* V. *p.* 779 (1836). *Gray's Zool. Misc.* (1844), *p.* 82.

Frontal Nuthatch, *Latham.*

Coral-billed Nuthatch, *Hodgson.*

Velvet-fronted Blue Nuthatch, *Jerdon.*

Blue Nuthatch, *Swainson.*

Social Nuthatch, *Jerdon.*

A. *b. c.* Java (types). From Dr. Horsfield's Collection.

*d. e. f. g.* Nepal (*S. corallina*, Hodgs.). Presented by B. H. Hodgson, Esq.

*h.* Drawing. Assam. From McClelland's Collection.

"Inhabits the hilly parts of India generally, Burmah, and the Malay countries."—(Blyth.)

"This lovely little creeper is found in great abundance in the dense woods of the Neilgherries. I have seen it, though rarely, below the Ghauts, also in thick forest jungle. It hunts, in general, in small parties of five or six, is very active and restless, creeping round the horizontal branches chiefly, and seeming to prefer the under-side of the branches, and also running downwards. It feeds on various small insects, which it picks off the bark, but does not tap like the common Nuthatch. Irides light yellow; bill orange."—(Jerdon.)

"Not uncommon in the suburbs of Moulmain."—(Rev. F. Mason.)

## Fam. II. UPUPIDÆ, *Bonap.*

Genus Upupa, *Linn. S. N.* (1735).

1054. *UPUPA EPOPS, Linn.*

Upupa epops, *Linn. S. N.* I. *p.* (1767); *Pl. Enl. pl.* 52. *Edw., Birds, pl.* 345. *Le Vaill., Prom. pl.* 22. *Lath., Gen. Hist. of B.* IV. *p.* 99. *McClelland, P. Z. S.* (1839), *p.* 165. *Blyth, Journ. As. Soc.*

*Beng.* XIV. *p.* 189; XVI. *p.* 999; *Catal. B. Mus. As. Soc. Beng. p.* 46. *G. R. Gray, Gen. of B.* I. *p.* 90. *Hodgson's Catal. B. of Nepal, p.* 58. *Bonap., C. G. Av. p.* 88.

Upupa vulgaris, *Pallas.*

Upupa indicus, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 82.

Hudhud, Mesopotamia, *Jones.* Hind., *Blyth.*

Toung-bee-tsot, Arracan, *Phayre.*

Kat-kuto, Scinde, *Blyth.*

*a. b.* ♂ ♀. Mesopotamia. Presented by Commander Jones.

*c.* Cabul. From Griffith's Collection.

*d.* Kumaon. Presented by Captain R. Strachey.

*e. f. g.* Nepal (*U. indicus,* Hodgs.). Presented by B. H. Hodgson, Esq.

*i.* Bootan. From Pemberton's Collection.

*j.* Assam. From McClelland's Collection.

"Inhabits Europe, Asia, and N. Africa. Common in Bengal and Nepal; generally replaced in S. India and Ceylon, as likewise in the Deyra Doon, by the next, though obtained by Mr. Jerdon in the Neilgherries."—(Blyth, Catal. p. 46.)

"Common in the winter months about Calcutta."—(Blyth, Ann. N. H. XII. p. 93.)

Mons. Sundevall, in his "List of Birds observed around Calcutta," says it "was twice seen (once on April 20th) near Serampore. The flight, motions, and, as far as I could see, the colour also, were identical with those of our northern Hoopoe."—(Ann. N. H. XVIII. p. 305.)

Capt. Hutton (J. A. S. Beng. XVI. p. 777) says, "At Candahar this bird was scarce, and only a summer visitor. I saw it, however, in the valley of Pisheen on the 6th March."

Francis (Buchanan) Hamilton, in his MS. Notes, III. p. 5, remarks, "Hudhud is a Persian name, that has extended to Bengal, the natives of which have no appellation for this bird. The Mussulmen venerate it on account of their supposing it to have been a favourite of Solomon, who employed one as a messenger.".

"Inhabits India and the Western Himalayas, as far north as

Chinese Tartary. I found it common in Ladakh. Often seen on trees. Its cry resembles the words *hoo-hoo*. The Drongo Shrike (*Dicrurus longicaudatus*, Hay) is its frequent tormentor. On the fine grassy glades in the valley of Cashmere, the Hoopoe may be seen digging its long bill into the soft turf in quest of insects; and just as its labour is nearly done, down pounces the Drongo Shrike to secure the fruits of its toil."—(Dr. A. L. Adams, Notes, P. Z. S. (1858), p. .)

"In Nepal, the Hoopoe is a familiar tenant of our lawn from September till May; but is never seen in Nepal proper during the hot and rainy months."—(Hodgson, Asiat. Res. XIX. p. 185.)

1055. *UPUPA NIGRIPENNIS, Gould, MS.*

Upupa indica,* *Layard. Bonap., Ateneo Italiano, p.* 12 (1854).

Upupa minor, *apud Sykes, Proc. Zool. Soc.* (1832), *p.* 97. *Jerdon, Madras Journ.* XI. *p.* 227.

Upupa senegalensis, *apud Blyth, Journ. As. Soc. Beng.* XIV. *p.* 189; XVI. *p.* 999; *Catal. B. Mus. As. Soc. Beng. p.* 46. *Layard, Ann. Nat. Hist.* XII. *n. s. p.* 174.

Upupa epops, *apud Burgess, P. Z. S.* (1855), *p.* 27.

? Upupa senegalensis, *Swains., Birds of W. Afr.* II. *p.* 114 (1837).

Hudhud, Hind., *Jerdon.*

Chaval Cooroovi, Mal., Ceylon, *Layard.*

A. *b.* Dukhun. Presented by Col. Sykes.

*c.* Mysore. Presented by F. Day, Esq., Assist. Surg., Madras, 1858.

Inhabits S. India, Deyra Doon, and Ceylon.

*Upupa nigripennis* may generally be distinguished from the preceding by its shorter wings, and the crest-feathers being tipped only with black; but in some specimens there is a trace of whitish on the hinder feathers.

"This is a tolerably common bird in every part of the peninsula of India; frequenting woody places, groves, single trees, hedges, and about old walls and other buildings, and to be seen in almost every

* Previously applied by Mr. Hodgson to the preceding species.

garden. It feeds entirely on the ground, walking along with ease, and picking up various insects as it moves along. It breeds, I am informed by shikarees, in the hot weather, in holes of old walls and other buildings."—(Jerdon.)

"In the upper portion of the Deccan this is a common bird, frequenting gardens and woody spots, and is very partial to sandy plots of ground, particularly outside the walls of villages. In such places the sand is perforated with the conical holes of the ant-lion; and that this is the food sought for by the Hoopoe in these spots, I discovered on opening the gizzard of one, which was of a very soft texture, and contained one large grub and two or three ant-lions. It breeds in the middle of April and May, building its nest in holes in the mud walls which surround the towns and villages in the Deccan. I transcribe a note, taken on 7th May, 1850, on the subject:—'Today a man brought me word that about fifteen or twenty days ago he found a pair of Hoopoes breeding in a hole in the walls of a town; the nest contained two young birds: it was composed of grass, hemp, and feathers. The same man tells me that he discovered another pair building.' The head man of the town of Jintee brought me an egg of the Hoopoe: it was of a very pale blue, or rather skim-milk colour. He found a nest in a hole in a fort wall; it was made soft with a few pieces of hemp, and contained three eggs."—(Lieut. Burgess, P. Z. S. (1855), p. 27.)

"In Ceylon, the Hoopoe is common in the Jaffna peninsula during the season of its stay, and I have every reason to believe that it not unfrequently breeds with us, as I shot a young bird not fully fledged in August. I saw the bird at Hambantotte and Trincomalee, and procured one specimen in Colombo. They feed much on the ground, and are indefatigable in scratching into the ordure of cattle, in search of small coleopterous insects. At such times the crest is carried flat on the head; but when seated on a tree-top, uttering its monotonous '*hoop, hoop, hoop,*' the crest is rapidly elevated and depressed, the bird swinging itself backwards and forwards at every repetition of its note."—(E. L. Layard.)

Genus Irissor, *Less. Tr. d'Orn. p.* 239 (1831).

1056. *IRISSOR ERYTHRORYNCHOS, Lath. Sp.*

Upupa erythrorhynchos, *Lath., Ind. Orn.* I. *p.* 280; *Gen. Hist. of B.* IV. *p.* 109; *Nat. Misc. pl.* 533 (*Vieill. Ois. d'Or. pl.* 6. *Le Vaill., Prom. pl.* 1, 2, 3).

Irissor erythrorhynchos, *G. R. Gray, Gen. of B.* I. *p.* 90. *Blyth, J. A. S. Beng.* XVI. *p.* 999; *Catal. B. Mus. As. Soc. Beng. p.* 45. *Bonap., C. G. Av. p.* 410.

Upupa viridis, *Lichtenstein.*

Irissor capensis, *Lesson, Tr. d'Orn. p.* 239.

A. B. Cape of Good Hope. Presented by Dr. Horsfield.

Genus Rhinopomastes, *Smith* (1828).

1057. *RHINOPOMASTES CYANOMELAS, Vieillot Sp.*

Falcinellus cyanomelas, *Vieill.* (*Le Vaill., Prom. pl.* 5, 6).

Rhinopomastes cyanomelas, *Smith. Bonap., C. G. Av. p.* 411.

Irissor cyanomelas, *G. R. Gray, Gen. of B.* I. *p.* 90.

A. *b. c. d.* Abyssinia. From Harris's Collection.

## Fam. III. NECTARINIDÆ, *Vigors.*

Genus Arachnothera, *Temm., Pl. Col.* 388 (1826).

Arachnothera, Arachnocestra, Arachnoraphis, *Reichenbach* (1854).

1058. *ARACHNOTHERA MAGNA, Hodgson Sp.*

Cinnyris magna, *Hodgson, India Review* (1837), *p.* 272.

Arachnothera magna, *Blyth, Journ. As. Soc. Beng.* XII. *p.* 981; *Catal. Birds Mus. As. Soc. Beng. p.* 221. *Hodgson, Catal. B. of Nepal, p.* 60. *G. R. Gray, Gen. of B.* I. *p.* 99. *Bonap., C. G. Av. p.* 410. *Cabanis, Cat. B. Mus. Heine, p.* 106.

Arachnothera chrysopus, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 82.

Arachnothera inornata, *apud McClelland, P. Z. S.* (1839), *p.* 167.

The Great Spider-hunter, *Hodgson.*

*a. b. c. d.* Nepal. Presented by B. H. Hodgson, Esq.

E. and drawing. Assam. From McClelland's Collection.

*f. g.* Assam. From Griffith's Collection.

*h.* Tenasserim. From Helfer's Collection.

1059. *ARACHNOTHERA FLAVIGASTER, Eyton Sp.*

Anthreptes flavigaster, *Eyton, Proc. Zool. Soc.* (1839), *p.* 105.

Arachnothera flavigaster, *Blyth, Journ. As. Soc. Beng.* XII. *p.* 981; XIV. *p.* 557; XV. *p.* 43; *Catal. Birds Mus. As. Soc. Beng. p.* 222. *G. R. Gray, Gen. of Birds,* I. *p.* 99.

Arachnoraphis flavigaster, *Reichenbach* (1854).

Chichap Rimba, Malay, *Eyton.*

Koleechap Pangone, Malay, *Blyth.*

Chrechup Basar, Malacca.

*a. b. c. d.* Malacca. Presented by Dr. Cantor, 1854.

*e. f.* Malacca. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

*Arachnothera flavigaster.*—Length about 8 in., of wing 4 in., tail 2 in., bill to forehead $1\frac{3}{4}$ in., and tarse $\frac{7}{8}$ in.

1060. *ARACHNOTHERA TEMMINCKI, Moore.*

*A. Temmincki, n. sp.* Upper-parts dull olive-green; upper tail-coverts tinged with orange-yellow; under-parts paler and yellower olive-green, passing to yellow on the abdomen, and to brighter yellow on the vent and under tail-coverts; pectoral tuft deep orange-yellow; the feathers of the flanks and sides of rump long, lax, and partially covering the rump; wings dusky, edged with orange-yellow; tail dusky, laterally edged with orange-yellow, with pale yellowish tips successively narrower to the middle pair. Bill strong, the ridge of upper mandible rounded to the tip. Length about 6 in., of wing $3\frac{1}{8}$ in., tail 2 in., bill from frontal plumes $1\frac{3}{10}$ in., and tarse $\frac{5}{8}$ in.

*a.* From Middleton's Collection.

*Remark.*—This species is somewhat allied to *A. uropygialis,* Gray, Gen. of B. I. plate XXXIII., the typical specimen of which in the British Museum I have compared, but differs in being smaller, the under-parts being without the streaks on the throat and breast.

In *A. uropygialis* (which name, we presume, is applied from the long and lax yellow feathers on the *sides* of the rump, but which cover the *rump in the drawing* of the typical specimen), the length of the bill is $1\frac{7}{10}$ in., the upper mandible being rounded to the tip as in *A. Temmincki* and *A. flavigaster,* and the wing is $3\frac{1}{2}$ in.

1061. *ARACHNOTHERA CHRYSOGENYS, Temminck.*

Arachnothera chrysogenys, *Temminck, Pl. Col.* 388, *f.* 1 (1826). *Müller, Verh. Nat. Gesch. Ned. Ind. Zool. Aves, p.* 69. *Blyth, Journ. As. Soc. Beng.* XII. *p.* 981; XV. *p.* 43; *Catal Birds Mus. As. Soc. Beng. p.* 222. *G. R. Gray, Gen. of B.* I. *p.* 99. *Bonap., C. G. Av. p.* 410. *Cabanis, Catal. B. Mus. Heine, p.* 106.

Arachnothera flavigenis, *Swainson, Classif. of B.* II. *p.* 329 (1837).

Certhia longirostra, *apud Horsfield, Trans. Linn. Soc.* XIII. *p.* 167. *Raffles, Trans. Linn. Soc.* XIII. *p.* 299. *Vigors, Mem. Raffles, p.* 672.

Prit Andun, Java, *Horsfield.*

Siap Jantung, Sumatra, *Raffles.*

*a.* Java. From Dr. Horsfield's Collection.

*b.* and drawing. Sumatra. From Raffles's Collection.

*c. d.* Malacca. Presented by Dr. Cantor, 1854.

*Arachnothera chrysogenys* and *A. flavigaster* are allied; but *A. chrysogenys* is much less in size, and *A. flavigaster* has a broad circle of yellow feathers surrounding the eye, in addition to the ear-tuft; whereas *A. chrysogenys* is naked under the eye, and has a semicircle of yellow feathers above it.

1062. *ARACHNOTHERA AFFINIS, Horsfield Sp.*

Cinnyris affinis, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 166 (1820). *Vigors, Mem. Raffles, p.* 673.

Arachnothera affinis, *G. R. Gray, Gen. of B.* I. *p.* 99. *Cabanis, Catal. B. Mus. Heine, p.* 106.

Nectarinia inornata, *Temminck, Pl. Col.* 84, *f.* 2 (1826). *Müller, Verh. Nat. Gesch. Ned. Ind. Zool. Aves,* I. *p.* 68. *Blyth, Journ. As. Soc. Beng.* XV. *p.* 43; *Catal. Birds Mus. As. Soc. Beng. p.* 222. *Bonap., C. G. Av. p.* 409.

Chess, Java, *Horsfield.*

A. *b.* Java. From Dr. Horsfield's Collection.

*Arachnothera affinis* is closely allied to *A. modesta*, but is of a more golden-green above; the under-parts are greyer, and marked more decidedly, especially on the breast, with a dark central streak to each feather.

1063. *ARACHNOTHERA MODESTA*, *Eyton Sp.*

Anthreptes modesta, *Eyton, Proc. Zool. Soc.* (1839), *p.* 105.

Arachnothera modesta, *Blyth, Journ. As. Soc. Beng.* XII. *p.* 981; XIV. *p.* 557; XV. *p.* 43; *Catal. Birds Mus. As. Soc. Beng. p.* 222. *Bonap., C. G. Av. p.* 410.

Arachnothera latirostris, *Blyth, Journ. As. Soc. Beng.* XII. *p.* 982 (1843). *G. R. Gray, Gen. of Birds*, I. *p.* 99.

Chichap Nio, Malay, *Eyton.*

*a. b.* Malacca. From Griffith's Collection.

*c. d.* Malacca. Presented by Dr. Cantor, 1854.

*e. f.* Malacca. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

1064. *ARACHNOTHERA PUSILLA*, *Blyth.*

Arachnothera pusilla, *Blyth, Catal. Birds Mus. As. Soc. Beng. App. p.* 328 (1852).

Arachnothera inornata, *apud Blyth, Journ. As. Soc. Beng.* XII. *p.* 982.

Arachnothera affinis, *Blyth, Journ. As. Soc. Beng.* XV. *p.* 43; *Catal. B. Mus. As. Soc. Beng. p.* 222.

Cinnyris longirostris, *Jerdon, Madras Journ.* XIII. *pt.* I. *p.* 172.

Arachnothera longirostris, *Bonap., C. G. Av. p.* 409, *n.* 2.

? Certhia longirostra, *Latham, Ind. Orn.* I. *p.* 299 (*Temm. Pl. Col.* 84, *f.* 1).

*a. b.* Arracan. From the Asiatic Society's Collection.

*c.* Tenasserim. From Helfer's Collection.

*d. e.* Malacca. From Griffith's Collection.

*Arachnothera pusilla.* Upper-parts olive-green, more or less flavescent; the crown darker, with scale-like feathers edged with greenish-grey; streak from base of upper mandibe dark ash, and the ear-coverts ashy-green; space before the eye and under the dark

streak, chin, and throat, pale dull greenish ashy-white, passing to pale yellow on the breast, and to brighter yellow on the belly, with sometimes a trace of the orange pectoral tuft; tail tipped with whitish. Length, 5 to 5¾ in., bill to forehead from 1⅜ in. to 1½ in., wing 2½ in. to 2⅝ in., tail 1½ in. to 1⅞ in., and tarse ⅜ in. to ⅝ in.

Inhabits the eastern coast of the Bay of Bengal, from Arracan to Malacca; and a specimen before me is from Java; and Mr. Jerdon "obtained it on the continent of India, in the Mysore district, bordering the Neilgherries."

*Remark.* — I see no other difference between *A. pusilla* and *A. longirostra*, Lath. (Temm., Pl. Col. 84, f. 1), than that specimens of the latter which I have examined at the British Museum are a trifle larger, and the yellow of the abdomen being somewhat brighter.

Genus Æthopyga, *Cabanis, Catal. B. Mus. Heine, p.* 103 (1851).

1065. *ÆTHOPYGA SIPARAJA*, *Raffles Sp.*

♂ Certhia Siparaja, *Raffles, Trans. Linn. Soc.* XIII. *p.* 299 (1822).

Æthopyga Siparaja, *Cabanis, Catal. B. Mus. Heine, p.* 103.

Cinnyris Siparaja, *Vigors, Mem. Raffles, p.* 673.

Nectarinia Siparaja, *Jardine, Nat. Libr. Nect. pp.* 235, 273. *G. R. Gray, Gen. of B.* I. *p.* 98, *n.* 69. *Blyth, Catal. B. Mus. As. Soc. Beng. p.* 223. *Bonap., C. G. Av. p.* 405.

Nectarinia mystacalis, *Temminck, Pl. Col.* 126, *f.* 3, ♂. *Müller, Verh. Naturl. Gesch. Ned. Ind. Zool. Aves, p.* 54, *pl.* 9, *f.* 1, ♀.

♂ Nectarinia Lathami, *Jardine, Nat. Libr. Nect. pp.* 233, 268 (1842). *Blyth, Journ. As. Soc. Beng.* XII. *p.* 970.

Siparaja, Sumatra, *Raffles.*

*a.* ♂. Drawing (type). Sumatra. From Raffles's Collection.

*b. c.* Pinang. Presented by Dr. Cantor, 1854.

1066. *ÆTHOPYGA MILES*, *Hodgson Sp.*

Nectarinia Seheriæ, *Tickell, Journ. As. Soc. Beng.* II. *p.* 577 (1833).

Cinnyris miles, *Hodgson, India Review* (1837), *p.* 273.

Æthopyga miles, *Cabanis, Catal. B. Mus. Heine, p.* 103.

Cinnyris labecula, *McClelland, Proc. Zool. Soc.* (1839), *p.* 167.

Nectarinia labecula, *Blyth, Journ. As. Soc. Beng.* XII. *p.* 973.

Certhia goalpariensis, *Royle, Ill. Himal. Bot.* II. *p.* 78, *pl.* 7, *f.* 1 (1839). *Jardine, Nat. Libr. Nect. pp.* 230, 267 (1842). *Blyth, Journ. As. Soc. Beng.* XII. *p.* 969; *Catal. B. Mus. As. Soc. Beng. p.* 223. *G. R. Gray, Gen. of B.* I. *p.* 98. *Hodgson's Catal. B. of Nepal, p.* 59. *Bonap., C. G. Av. p.* 405. *Gould, B. of Asia* (1850), *pl.* . *Tytler, Ann. Nat.* XIV. *n. s. p.* 175.

Æthopyga goalpariensis, *Cabanis, Catal. B. Mus. Heine, p.* 103.

Goulpourah Creeper, *Lath., Hist. of B.* IV. *p.* 221, *pl.* 74.

Goulpourah Sun-bird, *Gray.*

Military Sun-bird, *Hodgson.*

Phulchuiya, *F.* (*B.*) *Hamilton, MS.* II. *p.* 137.

*a. b. c. d.* ♂ ♀. Nepal. (*N. miles*, Hodgs.) Presented by B. H. Hodgson, Esq.

*e.* ♂. Deyra Doon. (*C. goalpariensis*, Royle.) From Dr. Royle's Collection.

*f.* ♂. Drawing. Assam. (*C. labecula*, McClel.) From McClelland's Collection.

*g.* ♂. Bootan. From Pemberton's Collection.

*h.* ♂. Kumaon. Presented by Capt. R. Strachey.

*i. j.* ♂ ♀. Himalaya. From Griffith's Collection.

*k.* ♂. Drawing. From F. (Buch.) Hamilton's Collection.

Capt. R. C. Tytler, writing upon the Fauna of Dacca, remarks: "Capt. Middleton sent me a cage-full of *Nect. goalpariensis*, which had been caught in the neighbourhood. These exquisite little crea-

tures I kept for a very long while, feeding them on sugar and water, bread and milk, occasionally varying their diet with honey. The males sing in captivity, and soon become familiar and confiding in their dispositions."

"This elegant species was procured near Seheria, in Borabhum, flitting about the low willow-bushes in the dried bed of a stream. It has no song, but a shrill chirp."—(Lieut. Tickell.)

"Inhabits the sub-Himalaya region, Assam, Sylhet, Arakan, and the Tenasserim provinces."—(Blyth.)

1067. *ÆTHOPYGA VIGORSI, Sykes Sp.*

♂ Cinnyris Vigorsii, *Sykes, Proc. Zool. Soc.* (1832), *p.* 98.

♂ ♀ Nectarinia Vigorsii, *Gould, B. of Asia* (1850), *pl.* .

♀ Cinnyris concolor, *Sykes, Proc. Zool. Soc.* (1832), *p.* 99.

Vigors' Sun-bird, *Sykes. Gould.*

A. *b. c.* ♂ ♀. Dukhun (types). Presented by Colonel Sykes.

*Æthopyga Vigorsi* differs from *Æ. miles* in being somewhat larger and more robust, and has the tail shorter, this in the female being almost square. The male may always be distinguished from that sex of the latter species by the light yellow striæ which intersect the scarlet of the breast, and by the small crescent of brilliant metallic blue on the ear-coverts.

"Inhabits the lofty trees of the dense woods of the Ghauts. Larvæ of flies, a spider, ants, and minute insects found in the stomach."—(Col. Sykes.)

1068. *ÆTHOPYGA GOULDIÆ, Vigors Sp.*

Cinnyris Gouldiæ, *Vigors, Proc. Zool. Soc.* (1831), *p.* 44. *Gould, Cent. of Himal. Birds, pl.* 56.

Æthopyga Gouldiæ, *Cabanis, Catal. B. Mus. Heine, p.* 103.

Nectarinia Gouldiæ, *Jardine, Nat. Libr. Nec. pp.* 238, 269. *Blyth, Journ. As. Soc. Beng.* XII. *p.* 974;

*Catal. B. Mus. As. Soc. Beng. p.* 223. *G. R. Gray, Gen. of B.* I. *p.* 98. *Bonap., C. G. Av. p.* 405.

*a.* ♂. Kumaon. Presented by Captain R. Strachey.

*Nectarinia Gouldiæ* is rather smaller than the two preceding species, with the sides and hind-part of the neck, the back, scapularies, and smaller wing-coverts, deep crimson; crown, ear-coverts, throat, shoulder-tuft, upper tail-coverts, lengthened middle pair of rectrices, and outer margins of the others towards the base, rich glossy metallic violet, purple, or blue, according to the light; the rest of the tail dusky, the three outer feathers with albescent tips; band over the rump clear yellow; wings beyond the smaller coverts dusky, margined with olive-green; breast and belly bright yellow, with a faint igneous tinge about the middle; bill blackish; legs dark brown. Length $5\frac{1}{2}$ in., of which the bill to forehead is $\frac{1}{2}$ in., and the middle rectrices $3\frac{1}{4}$ in.; wing $2\frac{2}{10}$ in., and tarse $\frac{1}{2}$ in.

This beautiful species also inhabits Sikim, Silhet, and Arracan, and is rare at Darjeeling, where, says Mr. Blyth, it is much sought after by collectors, who have currently styled it the "Beauty of the Hills."

1069. *ÆTHOPYGA IGNICAUDA*, *Hodgson Sp.*

♂ ♀ Cinnyris ignicauda, *Hodgson*, *India Review* (1837), *p.* 273. *Gray's Zool. Misc.* (1844), *p.* 82.

Æthopyga ignicauda, *Cabanis*, *Catal. B. Mus. Heine*, *p.* 103.

Nectarinia ignicauda, *Blyth*, *Journ. As. Soc. Beng.* XII. *p.* 972. *Hodgson's Catal. B. of Nepal*, *p.* 59. *G. R. Gray*, *Gen. of B.* I. *p.* 98. *Gould*, *Birds of Asia* (1850), *pl.* . *Bonap.*, *C. G. Av. p.* 405.

♂ Cinnyris epimecurus, *Hodgson*, *Gray's Zool. Misc.* (1844), *p.* 82.

♂ Cinnyris rubricaudata, *Blyth*, *Journ. As. Soc. Beng.* XI. *p.* 192 (1842).

♂ ♀ Nectarinia phœnicura, *Jardine*, *Nat. Libr. Nect. pp.* 242, 270 (1842).

Fire-tailed Sun-bird, *Hodgson*.

*a. b. c. d. e. f.* ♂ ♀ adult and young. Nepal (types). Presented by B. H. Hodgson, Esq.

*g.* ♀. Bootan. From Pemberton's Collection.

*h.* ♀. Darjeeling. From Pearson's Collection.

Mr. Hodgson,* in alluding to the species, which he has described, remarks, "These elegant little birds are very common in all parts of Nepal; nor are they anywhere migratory."

1070. *ÆTHOPYGA NIPALENSIS, Hodgson Sp.*

Cinnyris nipalensis, *Hodgson, India Review* (1837), *p.* 273. *Gray's Zool. Misc.* (1844), *p.* 82.

Æthopyga nipalensis, *Cabanis, Catal. B. Mus. Heine, p.* 103.

Nectarinia nipalensis, *Jardine, Nat. Libr. Nect. pp.* 236, 268, *pl.* 27. *Blyth, Journ. As. Soc. Beng.* XII. *p.* 974; *Catal. B. Mus. As. Soc. Beng. p.* 224. *G. R. Gray, Gen. of B.* I. *p.* 98. *Hodgson, Catal. B. of Nepal, p.* 59. *Gould, B. of Asia* (1850), *pl.* . *Bonap., C. G. Av. p.* 405.

Hemipteroc nipalense, *Hodgson* (*fide Bonap. Consp.*).

Nepalese Sun-bird, *Hodgson.*

*a. b. c. d. e. f. g. h.* ♂ ♀. Nepal. Presented B. H. Hodgson, Esq.

*i.* ♂. Darjeeling. From Pearson's Collection.

1071. *ÆTHOPYGA SATURATA, Hodgson Sp.*

Cinnyris saturata, *Hodgson, India Review* (1837), *p.* 273. *Gray's Zool. Misc.* (1844), *p.* 82.

Æthopyga saturata, *Cabanis, Catal. B. Mus. Heine, p.* 103.

Nectarinia saturata, *Blyth, Journ. As. Soc. Beng.* XII. *p.* 276; *Ann. Nat. Hist.* (1847), *p.* 316; *Catal. Birds Mus. As. Soc. Beng. p.* 224. *Bonap., C. G. Av. p.* 405.

Cinnyris assamensis, *McClelland, P. Z. S.* (1839), *p.* 167.

Nectarinia Hodgsonis, *Jardine, Nat. Libr. Nect. pp.* 240, 269, *pl.* 29 (1842).

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* India Review, 1837, p. 273.

Nectarinia Hodgsonii, *G. R. Gray, Gen. of B.* I. *p.* 98. *Hodgson's Catal. B. of Nepal, p.* 59.

*a. b. c. d.* ♂ ♀. Nepal (types). Presented by B. H. Hodgson, Esq.

*e. f.* ♂ and Drawing. Assam. (*C. assamensis,* McClel.) From McClelland's Collection.

*g. h. i.* ♂. Bootan. From Pemberton's Collection.

1072. *ÆTHOPYGA EXIMIA, Horsfield Sp.*

♂ Nectarinia eximia, *Horsfield,* Trans. Linn. Soc.* XIII. *p.* 168 (1820). *Jardine, Nat. Libr. Nect. p.* 268. *G. R. Gray, Gen. of B.* I. *p.* 98, *No.* .

Æthopyga eximia, *Cabanis, Catal. B. Mus. Heine, p.* 103.

♂ ♀ Nectarinia Kuhlii, *Temminck, Pl. Col.* 376, *f.* 1, 2 (182–). *Müller, Verh. Naturl. Gesch. Ned. Ind. Zool. Aves, p.* 56. *Bonap., C. G. Av. p.* 405.

Plichi Kembang, Java, *Horsfield.*

A. B. *c. d. e. f.* ♂ ♀. Java (type). From Dr. Horsfield's Collection.

1073. *ÆTHOPYGA ? TACAZZE, Rüppell Sp.*

Nectarinia Tacazze, *Rüppell, Fauna Abyss. pl.* 31, *f.* 3. *G. R. Gray, Gen. of B.* I. *p.* 98, *No.* 33. *Bonap., C. G. Av. p.* 405.

A. ♂. Abyssinia. From Harris's Collection.

Genus Cinnyris, *Cuvier, Règ. Anim. p.* (1817).

1074. *CINNYRIS ABYSSINICA, Ehrenberg Sp.*

Nectarinia abyssinica, *Ehrenberg, Symb. Phys. Aves, pl.* 4. *Rüppell, Syst. Uebers. p.* 28. *G. R. Gray, Genera of B.* I. *p.* 98, *n.* 34. *Bonap., C. G. Av. p.* 406. *Cabanis, Catal. B. Mus. Heine, p.* 101.

A. ♂. Abyssinia. From Harris's Collection.

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* *Nec.* Temminck.

Genus NECTARINIA, *Illiger* (1811).

1075. *NECTARINIA CRUENTATA, Rüppell.*

Nectarinia cruentata, *Rüppell, Syst. Uebers. p.* 26, *pl.* 9 (1845). *G. R. Gray, Gen. of B.* I. *p.* 98, *n.* 18.

Cinnyris cruentata, *Bonap., C. G. Av. p.* 406.

A. ♂. Abyssinia. From Harris's Collection.

1076. *NECTARINIA AFFINIS, Rüppell.*

Nectarinia affinis, *Rüppell, Fauna Abyss. pl.* 31, *f.* 1. *G. R. Gray, Gen. of B.* I. *p.* 98, *n.* 30. *Bonap., C. G. Av. p.* 406.

A. B. ♂ ♀. Abyssinia. From Harris's Collection.

Genus ANTHREPTES, *Swainson, Classif. of B.* II. *p.* 329 (1837).

ANTHOTHREPTES, *Cabanis, Catal. Birds Mus. Heine, p.* 104 (1851).

ANTHORHEPTES, *Agassiz.*

CINNYRICINCLE *et* HYPOGRAMMA, *Reichenbach* (1854).

1077. *ANTHREPTES MALACCENSIS, Scopoli Sp.*

Certhia malaccensis, *Scopoli, Del. Floræ et Faunæ Ins. p.* (1786). *Sonnerat's Voy. pl.* 116, *f.* 1.

Nectarinia malaccensis, *G. R. Gray, Gen. of B.* I. *p.* 99. *Blyth, Catal. B. Mus. As. Soc. Beng. p.* 225.

Anthothreptes malaccensis, *Cabanis, Catal. B. Mus. Heine, p.* 104.

Certhia lepida, *Sparmann, Mus. Carls. t.* 35 (1787). *Latham, Ind. Orn.* I. *p.* 298; *id. Gen. Hist.* IV. *p.* 229.

Nectarinia lepida, *Temminck, Pl. Col.* 126, *f.* 1, 2.

Anthreptes lepida, *Bonap., C. G. Av. p.* 409.

♂ ♀ Nectarinia javanica, *Horsfield, Trans. Linn. Soc.* XIII. *p.* 167 (1820). *Vigors, Mem. Raffles, p.* 673. *Latham, Hist. of B.* IV. *p.* 265. *Motley et Dilwyn, Nat. Hist. Labuan, p.* 16.

Certhia javanica, *Raffles, Trans. Linn. Soc.* XIII. *p.* 299.

♂ Cinnyris javanica, *Swainson, Zool. Ill.* 1*st ser. pl.* 121.

Anthreptes javanica, *Swainson, Classif. of B.* II. *p.* 329. *Blyth, Journ. As. Soc. Beng.* XII. *p.* 980.

Cinnyricincle javanica, *Reichenbach.*

Prit-gantil, Java, *Horsfield.*

A. *b. c. d.* ♂ ♀, and Drawing. Java. From Dr. Horsfield's Collection.

*e.* and Drawing, ♂ ♀. Sumatra. From Raffles's Collection.

*f. g. h. i.* ♂ ♀. Malacca, Pinang. Presented by Dr. Cantor, 1854.

*j.* ♂. Tenasserim. From Helfer's Collection.

Inhabits the Burmese and Malay countries, Borneo, and has lately been procured by Mr. Wallace at Macassar.

1078. *ANTHREPTES HYPOGRAMMICA, Müller Sp.*

♂ Nectarinia hypogrammica, *Müller, Verh. Naturl. Gesch. Ned. Ind. Zool. Aves, p.* 63, *pl.* 8, *f.* 3 (1839–44). *G. R. Gray, Gen. of B.* I. *p.* 98. *Blyth, Catal. B. Mus. As. Soc. Bengal, p.* 225.

Anthreptes hypogrammica, *Bonap., C. G. Av. p.* 409.

♀ Anthreptes macularia, *Blyth, Journ. As. Soc. Beng.* XI. *p.* 107 (1842).

♂ Anthreptes nuchalis, *Blyth, Journ. As. Soc. Beng.* XII. *p.* 980 (1843).

Nectarinia nuchalis, *G. R. Gray, Gen. of B.* I. *p.* 99.

Hypogramma nuchalis, *Reichenbach* (1854).

*a.* ♂. Drawing. From the Asiatic Society of Bengal.

*b.* ♀. Pinang. Presented by Dr. Cantor, 1854.

*Anthreptes hypogrammica.* Upper-parts rich dark olive-green, the tail dusky, its outer feathers successively more broadly margined with whitish, chiefly on their inner webs; base of hind-neck and the upper tail-coverts (of the male only) brilliant steel-blue; under-parts streaky, each feather broadly marked with dark olive-green along the middle, and laterally margined with pale sulphur-yellow, brightest on the belly; bill dusky-brown; legs leaden-brown. Length about 5½ in., of wing 2⅝ in., tail 1⅞ in., bill to forehead above ¾ in. and but little curved, and tarse ⅝ in.

Genus CYRTOSTOMUS, *Cabanis, Catal. B. Mus. Heine, p.* 105 (1851).

1079. *CYRTOSTOMUS PECTORALIS, Horsfield Sp.*

Nectarinia pectoralis, *Horsfield,* Trans. Linn. Soc.* XIII. *p.* 167 (1820). *Vigors, Mem. Raffles, p.* 673. *Lath., Hist. of B.* IV. *p.* 266. *Jardine, Nat. Libr. Nect. pp.* 226, 266, *pl.* 26, *f.* 1. *G. R. Gray, Gen. of B.* I. *p.* 98. *Blyth, J. A. S. Beng.* XV. *p.* 370; *Catal. B. Mus. As. Soc. Beng. p.* 225. *Motley et Dilwyn, Nat. Hist. Labuan, p.* 15.

Cyrtostomus pectoralis, *Cabanis, Catal. B. Mus. Heine, p.* 105.

Cinnyris pectoralis, *Bonap., C. G. Av. p.* 408.

Nectarinia eximia, *Temminck,†* *Pl. Col.* 138, *f.* 1, ♂ (?*f.* 2, ♀).

SRI-GANTI, Java, *Horsfield.*

A. B. *c. d.* ♂ ♀. Java. From Dr. Horsfield's Collection.

Inhabits Java, Sumatra, Malayan peninsula, the Nicobars, Lombock (Wallace), and has been shot at Labuan by Mr. Motley.

Mr. Dilwyn, in his "Nat. Hist. of Labuan," remarks: "In a letter I have received from Mr. Motley, he thus speaks of this species: 'I think that there is no doubt that this lovely little bird feeds almost entirely on honey: three or four of them frequent all day long a beautiful plant of *Russelia juncea*, just before my office-window, clinging to the slender twigs in all sorts of positions, and turning up the scarlet bells to insert their fairy little beaks. They appear very sociable little birds, never passing one another without putting their beaks together with a little chirp. If any one comes too near, off they go like meteors, but are back in a minute.'"

1080. *CYRTOSTOMUS FLAMMAXILLARIS, Blyth Sp.*

Nectarinia jugularis, *apud Blyth, Journ. As. Soc. Beng.* XII. *p.* 979.

Nectarinia flammaxillaris, *Blyth, J. A. S. Beng.* XIV. *p.* 557 (1845); XV. *p.* 370; *Catal. B. Mus. As. Soc. Beng. p.* 226. *Bonap., C. G. Av. p.* 408.

*a. b. c.* ♂ ♀. Pinang. Presented by Dr. Cantor.

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* *Nec.* Temm. † *Nec.* Horsfield.

Genus Leptocoma, *Cabanis, Catal. B. Mus. Heine, p.* 104 (1851).

Nectarophila, *Reichenbach* (1854).

1081. *LEPTOCOMA HASSELTI, Temminck Sp.*

Nectarinia Hasseltii, *Temminck, Pl. Col.* 376, *f.* 3, ♂. *Jardine, Nat. Libr. Nect. pp.* 218, 262, *pl.* 22. *Müller, Verh. Naturl. Gesch. Ned. Ind. Zool. Aves, p.* 59, *pl.* 10, *f.* 5, ♀ (?). *Blyth, Journ. As. Soc. Beng.* XIV. *p.* 557; *Catal. B. Mus. As. Soc. Beng. p.* 226. *G. R. Gray, Gen. of B.* I. *p.* 98, *No.* 49. *Bonap., C. G. Av. p.* 409.

Leptocoma Hasselti, *Cabanis, Catal. B. Mus. Heine, p.* 104.

Nectarophila Hasseltii, *Reichenbach.*

Nectarinia Phayrei, *Blyth, Journ. As. Soc. Beng.* XII. *p.* 1008 (1843). *G. R. Gray, Gen. of B.* I. *p.* 98, *No.* 60.

Certhia brasiliana, *Shaw, Zool.* VIII. *p.* 257.

Certhia sperata, *apud Raffles, Trans. Linn. Soc.* XIII. *p.* 298.

Chirichit, Chechap, or Siap, Sumatra, *Raffles.*

A. and Drawing, ♂ ♀. Sumatra. From Raffles's Collection.

*b. c.* ♂. Malacca. From Griffith's Collection.

*d. e. f. g.* ♂ ♀. Pinang and Malacca. Presented by Dr. Cantor, 1854.

*h.* ♂. Arracan. Presented by Capt. R. C. Tytler.

*Remark.*—The female of Temminck's *N. eximia* (Pl. Col. 138, f. 2) appears to us to be referable to this species, that figure agreeing with what we have determined as the female of *N. Hasselti;* and Müller's figure (Verh. Nat. Gesch. pl. 10, f. 5) of the female of *Hasselti* is more like that sex of Dr. Horsfield's *pectoralis.*

1082. *LEPTOCOMA ZEYLONICA, Linn. Sp.*

Certhia zeylonica, *Linn. S. N.* I. *p.* 188. *Lath., Gen. Hist. of B.* IV. *p.* 227.

Leptocoma zeylonica, *Cabanis, Catal. B. Mus. Heine, p.* 104.

Nectarinia zeylonica, *Jardine, Nat. Libr. Nect. pp.* 213, 261, *pl.* 20. *Blyth, Journ. As. Soc. Beng.* XII. *p.* 976; *Catal. B. Mus. A. S. Beng. p.* 226. *G. R. Gray, Gen. of B.* I. *p.* 98. *Bonap., C. G. Av. p.* 409.

Cinnyris zeylonica, *Sundevall, Physiogr. Sällsk. Tidsk.* (1837), *p.* ; *Ann. Nat. Hist.* XVIII. *p.* 256.

Cinnyris sola, *Vieillot, Enc. Méth. Jerdon, Madras Journ.* XI. *p.* 226.

Cinnyris nigralbus, *Vieillot, Enc. Méth.*

Certhia dubia, *Shaw, Gen. Zool.* VIII. *p.* 204.

Sukkur Khora, Hind., *F.* (*Buch.*) *Hamilton, MS.* I. *p.* 57.

Mau Chungee, Bengal, *F.* (*Buch.*) *Hamilton, MS.* I. *p.* 57.

A. ♂. Dukhun. Presented by Col. Sykes.

*b.* Assam. From McClelland's Collection.

*c.* ♀. Dacca. Presented by Capt. R. C. Tytler.

*d. e.* ♂. Mysore. Presented by F. Day, Esq., 1858.

*f. g.* ♂ ♀. Drawing. From F. (Buch.) Hamilton's Collection.

"Very abundant in the neighbourhood of Calcutta throughout the year, the male retaining its bright colours at all seasons. The female is dull-green above, with a slight rufous tinge, and cinnamon-coloured edgings to the greater wing-feathers; tail dusky-black, and underparts less bright-yellow than in the male, having the throat and foreneck albescent. The young, in nestling garb, resemble the female, but have the throat and flanks as yellow as the breast, a streak over the eye more distinct and yellow, and dark-hazel irides. This appears also to be the commonest species of the genus in peninsular India; but I have never seen it in collections from the Himalaya, nor is it included among the Nepalese species by Mr. Hodgson. It has a weak shrill chant, delivered in the same key as the song of the British *Accentor modularis*, and frequently emits a low weak chirp, that recalls to mind the analogous note of *A. regulus*, or of *Certhia familiaris*. The natives here take them with birdlime, and, after plucking out the wing-primaries to prevent their fluttering, tie them to a stick, and carry rows of them thus about for sale. These may be kept alive for several days on merely sugar and water, and I have heard one sing that had had no other diet for some days; but raspberry or

other fruit-jam is a better kind of food on which to keep these nectar-feeding birds. The members of the present genus, however, by no means confine themselves to a regimen of this kind; and I have taken so large a spider from the stomach of *N. asiatica*, as to have wondered how it could have been swallowed.

"According to Mr. Walter Elliot, the present species 'builds a hanging nest, with an entrance near the top, opening downwards;' and such is the form of a beautiful fabric before me, which I am assured is the production of this bird. It is attached, nearly throughout its length, to a small thorny twig, and is of an elongated pear-shape, composed chiefly of soft vegetable fibres very densely and neatly interwoven; on the outside are some coarser strips of grass leaves, scalings of bark, &c.; but the substance and internal lining are constructed of the softest fibres only, which are reflected over the lower portion of the entrance, so as to fasten down its rim, imparting thus a neatness of finish to this part of the structure; above the floor of the entrance is an overhanging roof or canopy, formed by the lining of the upper third or more of the nest, being made to project semicircularly over the orifice, and then finished externally, like the rest, with coarser material, and some bits of leaves and the like to disguise the nature of the fabric."—(Blyth.)

"This species appears to be more abundant in the Carnatic than in any other part of the peninsula. In that district it is very common, and to be seen in almost every garden, flitting about from flower to flower, its brilliant hues every now and then displayed to the eye, as it catches their reflection by the sun."—(Jerdon.)

Some interesting remarks respecting this species are given by M. Sundevall, in Ann. Nat. Hist. (1846), p. 256; and by Capt. R. C. Tytler, in Ann. Nat. Hist. (1854), p. 373.

1083. *LEPTOCOMA MINIMA*, *Sykes Sp.*

Cinnyris minima, *Sykes*, *Proc. Zool. Soc.* (1832), *p.* 98. *Jerdon*, *Madras Journ.* XI. *p.* 226.

Nectarinia minima, *Jardine*, *Nat. Lib. Nect. pp.* 224, 265, *pl. frontisp.* *Blyth*, *J. A. S. Beng.* XII. *p.* 978; *Catal. B. Mus. A. S. Beng. p.* 226. *G. R. Gray*, *Gen. of B.* I. *p.* 98, *No.* 52. *Bonap.*, *C. G. Av. p.* 409. *Layard*, *Ann. Nat. Hist.* XII. *n. s. p.* 175.

A. *b.* ♂. Dukhun (type). Presented by Col. Sykes.
*c.* Dukhun. Presented by F. Day, Esq., 1858.

"Met with only in the dense woods of the Ghauts. White ants and larvæ of flies were found in the stomach. One bird was seen sucking honey."—(Col. Sykes.)

"This lovely-plumaged little species I have only found but rarely in high forest jungle in Malabar."—(Jerdon.)

Genus ARACHNECHTHRA, *Cabanis, Catal. B. Mus. Heine, p.* 105 (1851).

CHALCOSTETHA, *Cabanis, id. p.* 103 (1851).

1084. *ARACHNECHTHRA LOTENIA, Linn. Sp.*

Certhia lotenia, *Linn. S. N.* I. *p.* 188 (*Vieill., Ois. d'Or. pl.* 11). *Lath., Hist. of B.* IV. *p.* 235.

Arachnechthra lotenia, *Cabanis, Catal. B. Mus. Heine, p.* 105.

Nectarinia lotenia, *Jardine, Nat. Libr. Nect. pp.* 220, 263, *pl.* 23. *Blyth, Journ. As. Soc. Beng.* XII. *p.* 978; *Catal. B. Mus. As. Soc. Beng. p.* 224. *G. R. Gray, Gen. of B.* I. *p.* 98. *Bonap., C. G. Av. p.* 408. *Layard, Ann. N. H.* XII. *n. s. p.* 175.

Certhia polita, *Sparmann, Mus. Carls. pl.* 59 (1788). *Latham, Ind. Orn.* I. *p.* 287; *Gen. Hist. of B.* IV. *p.* 245.

Cinnyris polita, *Jerdon, Madras Journ.* XI. *p.* 225.

Certhia purpurata, *Shaw, Gen. Zool.* VIII. *p.* 201 (1811). *Edwards, B. pl.* 265.

A. Dukhun. Presented by Col. Sykes.

*b. c.* ♂. Travancore. Presented by F. Day, Esq., 1858.

*Nect. lotenia* is allied to the next, but the male is distinguished by its superior size, its much larger and more curved bill, and brown under-parts from the breast, also by the admixture of green in its glosses. Length 5½ in., bill straight to front 1 in.

"Inhabits Southern India and Ceylon."—(Blyth.)

"I have procured this very handsome bird in the Carnatic and west coast, where it is tolerably common, frequenting both gardens and jungles. Food and habits as in *N. asiatica*."—(Jerdon.)

1085. *ARACHNECHTHRA ASIATICA, Latham Sp.*

Certhia asiatica, *Latham, Ind. Orn.* I. *p.* 288 (1790); *Gen. Hist. of B.* IV. *p.* 238.

Nectarinia asiatica, *Blyth, Catal. B. Mus. As. Soc. Beng. p.* 224. *Bonap., C. G. Av. p.* 408.

Certhia mahrattensis, *Lath., Ind. Orn. Supp. p.* 36; *Gen. Hist. of B.* IV. *p.* 238.

Cinnyris mahrattensis, *Sykes, P. Z. S.* (1832), *p.* 99. *Jerdon, Madras Journ.* XI. *p.* 224.

Nectarinia mahrattensis, *Blyth, J. A. S. Beng.* XII. *p.* 978; XIV. *p.* 557. *G. R. Gray, Gen. of B.* I. *p.* 98. *Jardine, Nat. Libr. Nect. pp.* 222, 264, *pl.* 24, ♂. *Hodgson's Catal. B. of Nepal, p.* 59.

Certhia chrysoptera, *Lath., Ind. Orn.* I. *p.* 299; *Gen. Hist. of B.* IV. *p.* 250.

Certhia cirrhata, *Lath., Ind. Orn.* I. *p.* 299; *Gen. Hist. of B.* IV. *p.* 251.

Certhia currucaria, *Linn. S. N.* I. *p.* 185. *Lath., Hist. of B.* IV. *p.* 231 (*young male*).

Cinnyris currucaria, *Sykes, P. Z. S.* (1832), *p.* 98.

Arachnechthra currucaria, *Cabanis, Catal. B. Mus. Heine, p.* 105.

Certhia saccharina, *Shaw, Gen. Zool.* VIII. *p.* 258 (1812).

Cinnyris orientalis, *Franklin, P. Z. S.* (1831), *p.* 122.

Cinnyris epauletta, *Hodgson, India Review* (1837), *p.* 272. *Gray's Zool. Misc.* (1844), *p.* 82.

Cinnyris strigula, *Hodgson, India Rev.* (1837), *p.* 272. *Gray's Zool. Misc.* (1844), *p.* 82 (*young*).

Cinnyris cyaneus, *Vieillot, Enc. Méth.*

Eastern Creeper, *Latham, Hist. of B.* IV. *p.* 232.

Purple Honey-sucker, *Jerdon.*

Jugi Jugi, Bhagulpore, *Tickell.*

Dunbarg, Scinde, *Blyth.*

Shakar Khora, Hind., *Jerdon. Phillips.*

*a. b. c. d.* Adult. Nepal. Presented by B. H. Hodgson, Esq.

E. F. ♂. Dukhun. Presented by Col. Sykes.

*g. h. i. j. k. l.* Young ♂ ♀. Scinde. Presented by Dr. H. Gould, 1855.

*m. n.* Adult. Kumaon. Presented by Capt. R. Strachey.
*o.* Drawing. From Heyne's Collection.

Mr. Blyth states (J. A. S. Beng. XII. p. 978): "I lately procured the young of this species, which is dark olive-green above, and tolerably bright yellow on the under-parts; wings dusky, with brownish margins to the tertials; and tail black, its exterior feathers tipped with whitish, and the outermost pair largely so, extending far up their outer webs. To this plumage would succeed the purple breeding dress; and the *Cin. strigula*, Hodgson, would seem to be founded on a specimen which had begun to throw out the purple feathers as 'a long central stripe from chin to breast,' just as is shown by a specimen before me, which, however, is moulting into the purple garb from the non-breeding livery of the adult, this last being, I apprehend, Mr. Hodgson's female *strigula*. The following is that naturalist's description: 'Above dark olive-green, below bright yellow; shoulders, and a long central stripe from chin to breast, brilliant deep blue; alar and caudal plumes dusky or black, the latter tipped and margined laterally in the extremes with white; a paler line over the eyes, and darker one through them; bill dusky, legs black. Female earthy-brown above, and greenish-yellow below: she is without gular stripe or shoulder-spot. Size and characters of *N. mahrattensis*.'

"This species visits the neighbourhood of Calcutta only in the cold season, when it is not uncommon. On its arrival, both sexes are clad in the plumage referred to *N. currucaria* by Sykes; and before they leave, all have more or less completely assumed their nuptial dress, which is alike in both sexes. In Nepal it is probably a summer visitant only; and it extends westward to the Indus, and southward to Ceylon, and eastward to Arracan."

"This appears to be the most generally spread of all the *Nectariniæ*, and is the only one I have met with in the bare table-land of peninsular India. I have lately (February) seen the nest of this pretty little bird close to a house in Jaulnah. It was commenced on a thick spider's web, by attaching to it various fragments of paper, cloth, straw, grass, and other substances, till it had secured a firm hold of the twig to which the web adhered, and the nest suspended on this was then completed by adding other fragments of the same materials. The hole is at one side, near the top, and has a slight projecting roof or awning over it. The female laid two eggs, of a greenish-grey tinge, spotted with dusky. The first nest it made was accidentally destroyed after two eggs had been laid, and the couple immediately

commenced building another in a small tree at the other side of the door, and, as in the first instance, commenced their operations on a fragment of spider's web. They reared two young ones from this nest.

"It has a very feeble but sweet chirping note. It feeds, like others of the genus, partly on the honey extracted from flowers, and partly on minute insects, flies, cicadæ, &c. It occasionally hovers on the wing before a flower while extracting the honey, but generally hops, or flies rather, among the smaller twigs. Occasionally I have seen it snap at an insect in the air. Whilst feeding, it frequently opens and closes its wings.

"I have seen this bird on the very top of the Neilgherries, which shows what a great degree of cold some of this tropical genus will suffer without inconvenience."—(Jerdon.)

Capt. S. R. Tickell (J. A. S. Beng. XVIII. p. 302) says: "Nest bulbous, bottle-shaped, with lengthened neck, suspended from the end of a small branch, in thick bushy trees, gardens, banks of tanks, seldom far in jungle. Nest soft, composed of little bits of leaves, grasses, fine twigs, and chips of bark, woven together with a fibrous substance resembling tow. Entrance by a small circular hole at bottom, and side lined neatly with seed-down. Length 8 in.; eggs three, $\frac{1}{2}$ in. long, rather pointed, pale greenish-white, minutely speckled with dusky, which forms a clouded zone round larger end."

1086. *ARACHNECHTHRA CHALCOSTETHA*, *Jardine Sp.*

♂ Nectarinia calcostetha, *Jardine, Nat. Libr. Nect. p.* 263 (1842).

♂ Nectarinia pectoralis, *Temminck,** *Pl. Col.* 138, *f.* 3 (182–). *Müller, Verh. Naturl. Gesch. Ned. Ind. Zool. Aves, p.* 57, *pl.* 9, *f.* 2, ♀.

Chalcostetha pectoralis, *Cabanis, Catal. B. Mus. Heine, p.* 103.

♂ Nectarinia insignis, *Jardine, Nat. Libr. Nect. p.* 274 (1842). *G. R. Gray, Gen. of B.* I. *p.* 98, *n.* 68.

Cinnyris Mackloti, *Bonap., C. G. Av. p.* 408 (1850).

A. ♂. Java. From Dr. Horsfield's Collection.

*b*. ♂. Drawing. From Parry's Collection.

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* *Nec.* Horsfield.

Genus Chalcoparia, *Cabanis, Catal. B. Mus. Heine, p.* 103 (1851).

1087. *CHALCOPARIA PHŒNICOTIS, Temminck Sp.*

♂ ♀ Nectarinia phœnicotis, *Temminck, Pl. Col.* 108, *f.* 1, ♂ ; 388, *f.* 2, ♀ (182–). *Blyth, Catal. B. Mus. As. Soc. Beng. p.* 225.

Anthreptes phœnicotis, *Blyth, J. A. S. Beng.* XII. *p.* 979 (1843) ; XIV. *p.* 557.

Cinnyris phœnicotis, *Bonap., C. G. Av. p.* 408.

Nectarinia cingalensis, *apud G. R. Gray, Gen. of B.* I. *p.* 99, *n.* 96.

Chalcoparia cingalensis, *Cabanis, Catal. B. Mus. Heine, p.* 103.

? Motacilla cingalensis, *Gmel., S. N.* I. *p.* 964 (*Brown's Ill. pl.* 32).

*a. b. c.* ♂ ♀. Adult and young. Malacca. Presented by Dr. Cantor, 1854.

Genus Dicæum, *Cuvier, Règ. An.* (1817).

1088. *DICÆUM COCCINEUM, Scopoli Sp.*

Certhia coccinea, *Scopoli, Del. Floræ et Faunæ Ins. p.* (1786). (*Sonn., Voy. Ind. pl.* 117, *f.* 1.)

Dicæum coccineum, *G. R. Gray, Gen. of B.* I. *p.* 100, *n.* 9. *Motley et Dilwyn, Nat. Hist. Labuan, p.* 19.

Certhia cruentata, *Linn., S. N.* I. *p.* 187 (1767). *Edward's B. pl.* 81. *Lath., Ind. Orn.* I. *p.* 296.

Dicæum cruentatum, *Strickland, Ann. Nat. Hist.* XIII. *p.* 38. *Blyth, Catal. B. Mus. As. Soc. Beng. p.* 226. *Bonap., C. G. Av. p.* 402. *Cabanis, Catal. B. Mus. Heine, p.* 98. *Gould, B. of Asia* (1854), *pl.* . *Tytler, Ann. Nat. Hist.* XIII. *n. s. p.* 373.

Certhia erythronotos, *Lath., Ind. Orn.* I. *p.* 290 (1790) ; *Gen. Hist. of B.* IV. *p.* 241 (*Vieill. Ois. d'Or. pl.* 35). *Raffles, Trans. Linn. Soc.* XIII. *p.* 298.

Dicæum erythronotum, *Cuvier, Règ. Anim. p.* . *McClelland, P. Z. S.* (1839), *p.* 167. *Blyth, J. A. S. Beng.* XII. *p.* 983 ; XIV. *p.* 558 ; *Ann. Nat. Hist.* XII. *p.* 167.

Dicæum rubricapillum, *Lesson, Enc. Méth.*

Nectarinia ignita, *Begbie, Ann. Nat. Hist.* XVII. *p.* 408 (1846).

*a. b. c.* ♂ ♀. Nepal. (No. 933, Hodgson's List.) Presented by B. H. Hodgson, Esq., 1853.

*d.* ♂, and Drawing. Assam. From McClelland's Collection.

*e.* ♂. Tenasserim. From Helfer's Collection.

*f. g. h. i. j. k.* Pinang and Malacca. Presented by Dr. Cantor, 1854.

*l.* ♂. Drawing. Sumatra. From Raffles's Collection.

Inhabits Bengal (it not being rare in the vicinity of Calcutta), Assam, Arracan, Tenasserim, and the Malayan peninsula, and was obtained by Mr. Dilwyn in Labuan.

1089. *DICÆUM RUBROCANUM, Temminck Sp.*

♂ ♀ Nectarinia rubrocana, *Temm., Pl. Col.* 108, *f.* 2, 3 (*Vaill., Ois. d'Afr. pl.* 136).

Dicæum rubrocanum, *Blyth, J. A. S. Beng.* XV. *p.* 44. *Bonap., C. G. Av. p.* 403.

Dicæum rubescens (*Vieillot*). *G. R. Gray, Gen. of B.* I. *p.* 100, *n.* 10.

Dicæum cruentatum, *apud Horsfield, Trans. Linn. Soc.* XIII. *p.* 168.

Sopa, Java, *Horsfield.*

A. B. *c. d.* ♂ ♀, and Drawing. Java. From Dr. Horsfield's Collection.

1090. *DICÆUM TRIGONOSTIGMA, Scopoli Sp.*

Certhia trigonostigma, *Scopoli, Del. Floræ et Faunæ Ins. p.* (1786). (*Sonn., Voy. Ind. pl.* 117, *f.* 2.)

Dicæum trigonostigma, *G. R. Gray, Gen. of B.* I. *p.* 100, *n.* 8. *Blyth, Catal. B. Mus. As. Soc. Beng. p.* 226. *Bonap., C. G. Av. p.* 403. *Cabanis, Catal. B. Mus. Heine, p.* 98.

Certhia cantillans, *Latham, Ind. Orn.* I. *p.* 299 (1790); *Gen. Hist. of B.* IV. *p.* 244.

♂ Dicæum cantillans, *Temminck, Pl. Col.* 478, *f.* 3.

♂ Dicæum croceoventre, *Vigors, Mem. Raffles, p.* 673 (1830). *Motley et Dilwyn, Nat. Hist. Labuan, p.* 17.

Beong Nalow, Malay, *Blyth's Catal.*

Burong Bunga Api, Malay, Labuan, *Motley.*

*a. b.* ♂ ♀. Tenasserim. From Helfer's Collection.

*c. d.* Malacca. From Griffith's Collection.

*e.* ♂. Drawing. Sumatra. (*D. croceoventre,* Vig.) From Raffles's Collection.

*f. g. h. i.* ♂ ♀. Pinang and Malacca. Presented by Dr. Cantor, 1854.

Inhabits Arracan, Tenasserim, Malayan peninsula, Pinang, Sumatra, and is "not uncommon in Labuan."

"These little birds are not uncommon in Labuan, and have something of the habits of the English *Regulus;* they haunt low brushwood, and continually utter a low shrill chirp; they are very fearless, allowing themselves to be almost touched before they take to flight. The Malay name, which signifies spark-bird, is very appropriate, as, when darting about among the bushes, the cock-bird really looks as bright as a flash of fire. The nest of this species is about the shape and size of a goose's egg, and is suspended by the small end from some slender twig of a tall tree: it is built of fine green moss and a sort of brown byssus, and lined with some white fibre and a few small feathers. One of these nests was found on a tree which was felled in the jungle; all the young birds, however, except one, had been killed by the fall; the survivor was brought to Mrs. Motley, who succeeded, by great care, in bringing it up, feeding it at first upon rice and banana pulp. As soon as it was strong enough it was placed in a small cage; though very restless, never being for one moment still, it was perfectly tame and fearless, and would sit upon the finger without attempting to fly away; and though its whole body, feathers and all, might have been shut up in a walnut, it would peck at a finger held towards it with great fierceness: for a long time it would only take food from the hand, but afterwards, when food was given, it dropped and shook its wings rapidly, as we see a hen partridge occasionally do. At first its beak was short, straight, and sharp, but as it grew, its form gradually changed to that of the adult *Dicæums;* it also changed its diet altogether, refusing rice, and only occasionally taking plantain; for some weeks it fed exclusively upon

sugar and water, which it sucked up like a Humming-bird; it was very fond of bathing in a large shell full of water placed in its cage." —(Motley and Dilwyn's Nat. Hist. of Labuan.)

1091. *DICÆUM MINIMUM, Tickell Sp.*

Nectarinia minima, *Tickell, J. A. S. Beng.* II. *p.* 577 (1836).

Dicæum minimum, *Blyth, Ann. Nat. Hist.* XX. *p.* 316; *Catal. B. Mus. As. Soc. Beng. p.* 227. *Bonap., C. G. Av. p.* 403. *Tytler, Ann. Nat. Hist.* XIII. *n. s. p.* 373.

Certhia erythrorhyncha,* *Latham, Ind. Orn.* I. *p.* 299; *Gen. Hist. of B.* IV. *p.* 252.

Dicæum erythrorhynchum, *Jerdon, Madr. Journ.* XIII.

Dicæum Tickelliæ, *Blyth, J. A. S. Beng.* XI. *p.* 889; XII. *p.* 983; XIII. *p.* 393; XIV. *p.* 558; *Ann. N. H.* XII. *p.* 167. *Strickland, Ann. N. H.* XIII. *p.* 38.

Myzanthe (Micrura) inornata, *Hodgson, Gray's Zool. Misc.* (1844), *p.* 82; *Catal. B. of Nep. p.* 60.

A. Adult. Bengal. (*D. Tickelliæ*, Blyth.) From the Asiatic Society of Bengal.

*b. c. d. e.* Nepal. (*M. inornata*, Hodgs.) Presented by B. H. Hodgson, Esq.

*f. g. h.* Dacca. Presented by Captain R. C. Tytler.

*i.* Drawing. From F. (Buch.) Hamilton's Collection.

"Ashy-olive above, paler beneath; wings and tail darker; bill pale flesh-colour, with dusky tip; legs leaden-brown; irides dark. Sexes alike. Length 3 in. to 3⅛ in., wings 1¾ in. to 1⅞ in., tail ⅞ in., bill to forehead ⅜ in., and tarse $\frac{7}{16}$ in. Young birds, when they leave the nest, have the beak flesh-red colour, except just the tip."

Inhabits India generally, Ceylon, and Arracan. Common in Lower Bengal.

Capt. R. C. Tytler states that it is "very abundant at Barrackpore, but at all times difficult to obtain, owing to their extreme minuteness; besides which, they keep often in the upper branches of high trees."

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* This name is too inaccurate to be retained.

1092. *DICÆUM CHRYSORRHÆUM*, *Temminck Sp.*

Dicæum chrysorrhæum, *Temminck*, *Pl. Col.* 478, *f.* 1. *Strickland*, *P. Z. S.* (1846), *p.* 100. *G. R. Gray*, *Gen. of B.* I. *p.* 100, *n.* 12. *Blyth*, *Catal. B. Mus. As. Soc. Beng. p.* 227. *Bonap.*, *C. G. Av. p.* 403.

Dicæum chrysochlore, *Blyth*, *J. A. S. Beng.* XII. *p.* 1009 (1843).

*a.* Nepal. (No. 973, Hodgson's List.) Presented by B. H. Hodgson, Esq.

*b.* Tenasserim. From Helfer's Collection.

*c. d.* Malacca. From Griffith's Collection.

*e. f. g.* Malacca. Presented by Dr. Cantor, 1854.

Inhabits Nepal, Arracan, Tenasserim, and extends its range southward to Malacca.

Genus Myzanthe, *Hodgson*, *J. A. S. Beng.* XII. *p.* 983 (1843).

Micrura, *Hodgson*, *Gray's Zool. Misc.* (1844), *p.* 82.

1093. *MYZANTHE IGNIPECTUS*, *Hodgson.*

Myzanthe ignipectus, *Hodgson*, *J. A. S. Beng.* XII. *p.* 983 (1843). *Blyth*, *Catal. B. Mus. As. Soc. Beng. p.* 227. *Gould*, *B. of Asia* (1854), *pl.* . *Bonap.*, *C. G. Av. p.* 402.

Myzanthe (Micrura) ignipectus, *Hodgson*, *Gray's Zool. Misc.* (1854), *p.* 82; *Catal. B. of Nepal*, *p.* 60.

Dicæum ignipectus, *G. R. Gray*, *Gen. of B.* I. *p.* 100, *n.* 21.

*a. b. c. d. e. f.* ♂ ♀. Nepal. Presented by B. H. Hodgson, Esq.

Genus Prionochilus, *Strickland*, *P. Z. S.* (1841), *p.* 29.

1094. *PRIONOCHILUS PERCUSSUS*, *Temm. Sp.*

♂ Pipra percussus, *Temminck*, *Pl. Col.* 394, *f.* 2.

Prionochilus percussus, *Strickland*, *P. Z. S.* (1841), *p.* 29. *Blyth*, *Journ. As. Soc. Beng.* XIV. *pp.* 558–9; *Catal. B. Mus. As. Soc. Beng. p.* 227. *Bonap.*, *C. G. Av. p.* 335. *Cabanis*, *Catal. B. Mus. Heine*, *p.* 112.

Dicæum percussum, *G. R. Gray, Gen. of B.* I. *p.* 100, *n.* 23.

Dicæum ignicapillum, *Eyton, P. Z. S.* (1839), *p.* 105. Nalow, Malay, *Eyton.*

*a. b.* ♂. Malacca. From Griffith's Collection.

*c. d. e. f. g. h.* ♂ ♀. Adult and young. Pinang and Malacca. Presented by Dr. Cantor, 1854.

*i. j.* ♂. Malacca. From Indian Collection, Exposition Universelle at Paris, 1855.

1095. *PRIONOCHILUS MACULATUS, Temm. Sp.*

Pardalotus maculatus, *Temminck, Pl. Col.* 600, *f.* 3.

Prionochilus maculatus, *Strickland, P. Z. S.* (1841), *p.* 29.

*a.* Malacca. From Griffith's Collection.

*b. c. d. e.* Pinang and Malacca. Presented by Dr. Cantor, 1854.

*f. g.* Borneo. Presented by J. Gould, Esq., 1854.

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